MORRIS

MINI
minor

Driver's Handbook

A B.M.C. PUBLICATION

J. Baddock

The

MORRIS

Mini-Minor

DRIVER'S HANDBOOK

A copy of this Driver's Handbook is sent out with every Morris Mini-Minor vehicle. Additional copies are obtainable only from your Morris Distributor and Part No. AKD3886 should be quoted when ordering

VAN/PICK-UP DRIVER

You are reminded that your vehicle is subject to a speed restriction within the United Kingdom except on any of the recognized motorways

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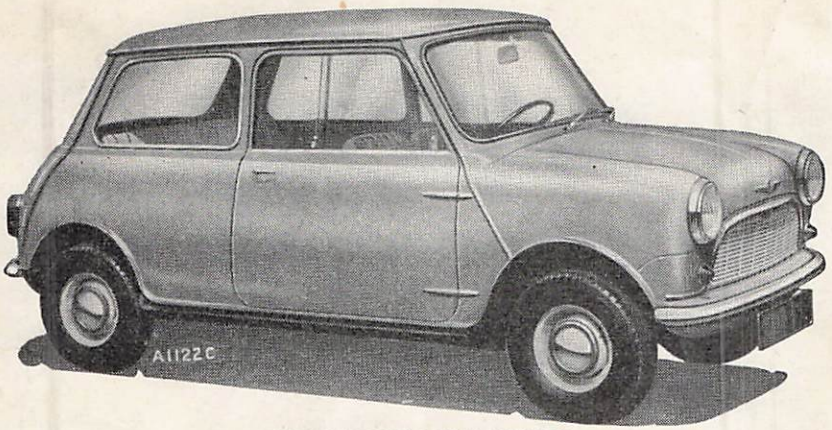
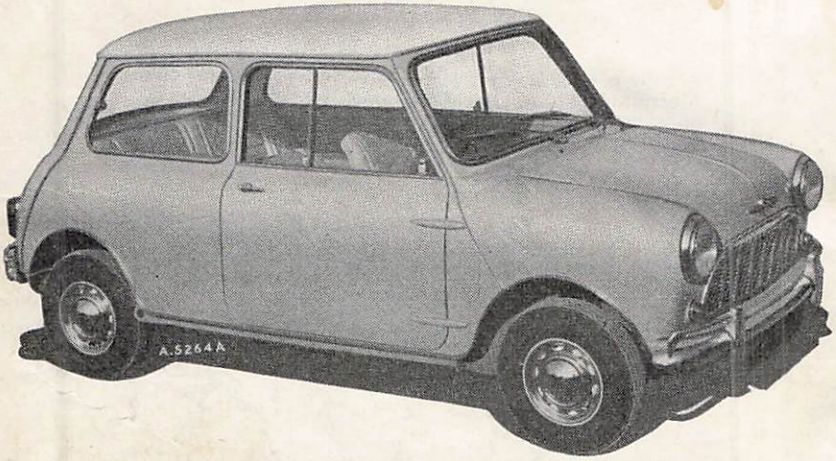
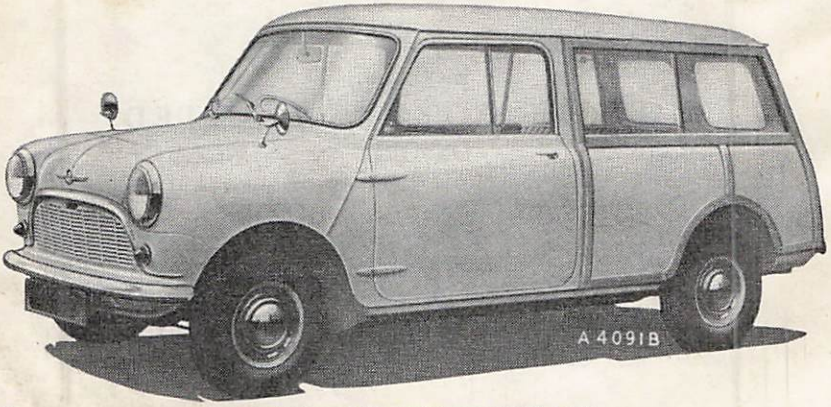


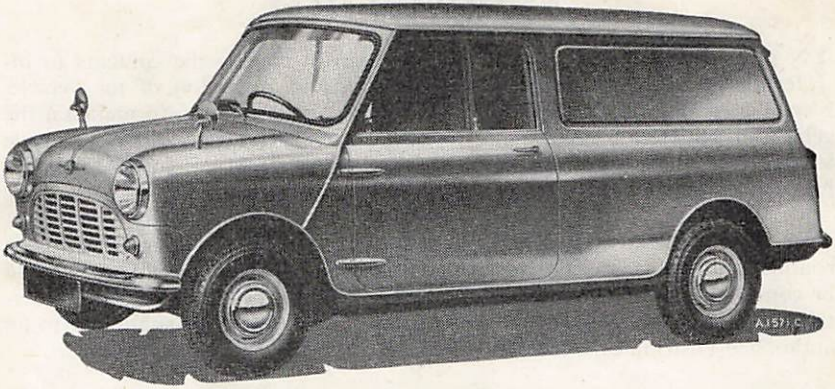
THE MORRIS MINI-MINOR



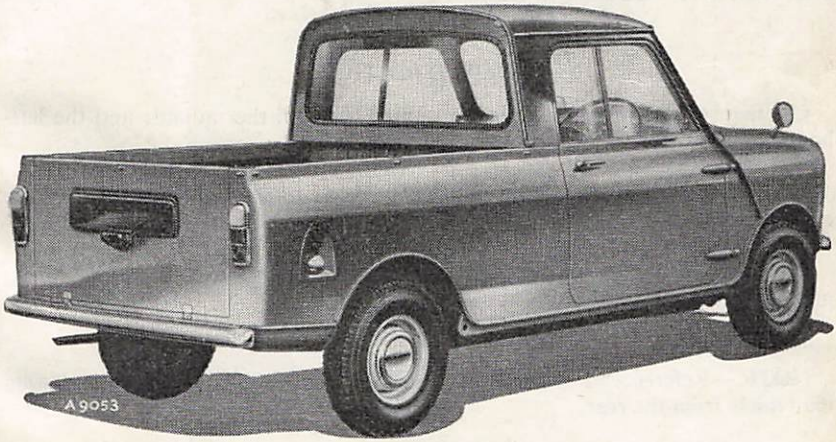
THE MORRIS SUPER DE-LUXE MINI-MINOR



THE MORRIS MINI-TRAVELLER



THE MORRIS MINI-VAN



THE MORRIS MINI PICK-UP

FOREWORD

IN producing this book the object has been to confine the contents to information essential to the proper running and operation of the vehicle. Nevertheless, the operator will find all the guidance necessary to maintain the vehicle in first-class condition and to ensure trouble-free service. Every vehicle leaving the Factory is capable of giving absolute satisfaction if the maintenance instructions detailed in the following pages are carefully carried out.

Remember that an authorized Distributor/Dealer is better equipped to provide routine and repair service than any one else; he is at your service and should be consulted if you encounter trouble. When emergency work has been undertaken by other than a franchise holder the vehicle should be submitted to an authorized Distributor/Dealer for checking.

All Warranty work must be carried out by an authorized Distributor/Dealer.

When communicating with your Distributor/Dealer always quote the car and engine numbers; the registration number is of no use and is not required.

For those wanting information of a more detailed and technical nature than is contained in this Handbook a Workshop Manual is available at a reasonable price from your Distributor/Dealer.

IDENTIFICATION

Car number. Located on a plate mounted between the radiator and the left-hand wing valance.

Engine number. Stamped on a metal plate fixed to the right-hand side of the cylinder block.

Transmission casing assembly. Stamped on a facing provided on the casing just below the starter motor.

NOTE.—References to right or left hand in this book are made when viewing the vehicle from the rear.

GENERAL DATA

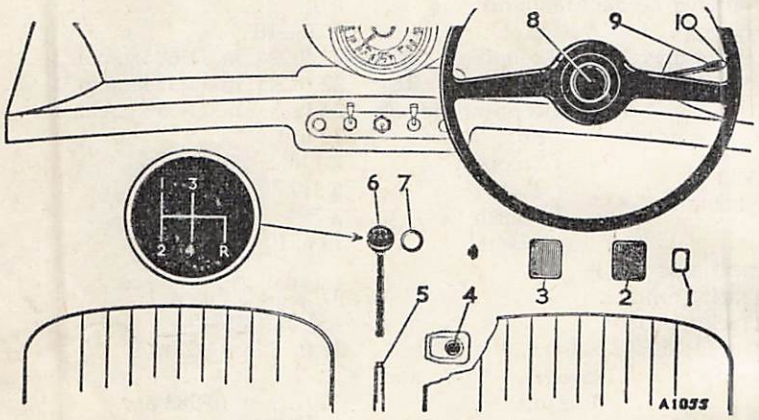
Engine	4-cylinder, overhead valves
Bore	2·477 in. (63 mm.)
Stroke	2·687 in. (68·26 mm.)
Cubic capacity	51·7 cu. in. (848 c.c.)
Compression ratio	8·3 : 1
Firing order	1, 3, 4, 2
Valve rocker clearance (cold)	·012 in. (·30 mm.)
Sparking plugs	N5, 14 mm.
Sparking plug gap	·025 in. (·64 mm.)
Static ignition timing	See page 26
Contact breaker gap	·014 to ·016 in. (·36 to ·40 mm.)
Carburetter needle (standard)	EB
Tyre size	5·20—10
Tyre pressures: Normal conditions: Front	24 lb./sq. in. (1·68 kg./cm.²)
Rear	22 lb./sq. in. (1·55 kg./cm.²)
Full load: Front and rear	24 lb./sq. in. (1·68 kg./cm.²)
Overall gear ratios: First	13·657
With synchromesh: Second	8·176
Third	5·317
Fourth	3·765
Reverse	13·657
Dimensions:	
Track (front)	47 $\frac{7}{16}$ in. (1·205 m.)
Track (rear)	45 $\frac{7}{8}$ in. (1·164 m.)
Turning circle: Saloon	31 ft. 7 in. (9·63 m.)
Traveller, Van, and Pick-up	32 ft. 9 in. (9·983 m.)
Front wheel alignment	$\frac{1}{16}$ in. (1·59 mm.) toe-out
Wheelbase: Saloon	6 ft. 8 $\frac{5}{32}$ in. (2·036 m.)
Traveller Van, and Pick-up	7 ft. 0 $\frac{5}{32}$ in. (2·138 m.)
Overall length: Saloon	10 ft. 0 $\frac{1}{4}$ in. (3·05 m.)
Traveller and Van	10 ft. 9 $\frac{7}{8}$ in. (3·259 m.)
Pick-up	10 ft. 10 $\frac{1}{2}$ in. (3·315 m.)
Overall width	4 ft. 7 $\frac{1}{2}$ in. (1·41 m.)
Overall height: Saloon	4 ft. 5 in. (1·35 m.)
Traveller and Pick-up	4 ft. 5 $\frac{1}{2}$ in. (1·36 m.)
Van	4 ft. 6 $\frac{1}{2}$ in. (1·38 m.)
Fuel tank capacity: Saloon	5 $\frac{1}{2}$ gal. (25 litres, 6·6 U.S. gal.)
Traveller, Van, and Pick-up	6 gal. (27 litres, 7·2 U.S. gal.)
Engine and transmission oil capacity (includes filter)	8 $\frac{1}{2}$ pints (4·83 litres, 10·2 U.S. pints)
Water capacity	5 $\frac{1}{4}$ pints (3 litres, 6·3 U.S. pints)
Water capacity with heater	6 $\frac{1}{4}$ pints (3·55 litres, 7·5 U.S. pints)
Weight (kerbside): Saloon	1,294 lb. (587 kg.) approx.
Traveller,	1,456 lb. (660 kg.) approx.
Van	1,334 lb. (605 kg.) approx.
Pick-up	1,328 lb. (603 kg.) approx.
Maximum towing weight	
Saloon	8 cwts. (406·5 kg.).
Traveller, Van, and Pick-up	5 cwts. (254·2 kg.).

CONTROLS AND INSTRUMENTS

Gear lever

The gear lever is centrally situated. First and second gears are selected by moving the lever to the left, and engaged by moving it forwards for first gear or backwards for second gear. Third and fourth gears are selected by moving the lever to the right through the neutral position till resistance is felt, then forwards for third gear or backwards for fourth gear.

To engage the reverse gear move the lever to the right in the neutral position until resistance is felt, continue moving the lever to the right against the spring pressure until the stop is reached, and then move it backwards to engage the gear.



The controls (all models)

1. Accelerator pedal.
2. Brake pedal.
3. Clutch pedal.
4. Starter switch.
5. Hand brake.
6. Gear lever.
7. Headlight dip switch.
8. Horn-push.
9. Direction indicator.
10. Direction indicator warning light.

Pedal controls

The pedal controls are arranged in the orthodox positions—namely, the clutch pedal, brake pedal, and accelerator, reading from left to right. Do not drive with your foot resting on the clutch pedal.

Hand brake

Pulling the lever upwards operates the rear wheel brake-shoes mechanically. To release the brake pull on the lever to take the load and then press on the ratchet release with the thumb before pushing the handle downwards into the 'off' position.

Ignition switch

The ignition switch is located in the control panel and is operated by a removable key, which also serves to lock the driver's door.

Never leave the switch in the 'on' position when the engine is not running.

Ignition warning light

The ignition warning light serves the dual purpose of reminding the driver to switch off the ignition and of acting as a no-charge indicator. With the ignition switched on the warning light should only be illuminated when the engine is not running, or is running at a very low speed. As the engine speed is increased the light should dim and then go out at a fairly low engine speed.

If the light fails to go out until higher engine speeds are reached, or remains alight at all times inspect the dynamo driving belt for correct tension or breakage. If the belt is in order, the charging system must be overhauled by a Distributor or Dealer.

Choke or mixture control

To enrich the mixture and to assist starting when the engine is cold pull out the control knob marked 'C' positioned to the right of the control panel. The control will hold in any position, giving a progressively richer mixture as it is pulled out.

On no account should the engine be run for any length of time with the knob pulled fully out. It should be pushed in as soon as possible as the engine warms up. A little practice will soon familiarize the driver with the correct use of this control.

The first ¼ in. (6·35 mm.) approx. of movement operates only the throttle control. This initial movement can be used to give a fast engine idling speed and prevent stalling when driving at low speeds before the engine has fully warmed up. This will not be detrimental to the engine, but do not run the engine for any length of time with the control withdrawn to a greater extent.

Starter switch

The starter switch is controlled by the circular black knob positioned on the floor just forward of the driver's seat. Push the knob smartly downwards to operate the starter and release it immediately the engine fires. Should the engine fail to start, wait until the crankshaft comes to rest before operating the starter again. Do not run the battery down by keeping the starter in operation when the engine fails to start.

See notes on starting and warming up on page 21.

Headlight and pilot light switch

The headlight and pilot light switch is positioned to the right of the ignition switch on the control panel.

The pilot lights, tail lights, and instrument light are all brought into operation when the switch is moved downwards to the central position. Further downward movement of the switch to the lower position will bring the headlights into operation.

Headlight beam dipping switch and warning light

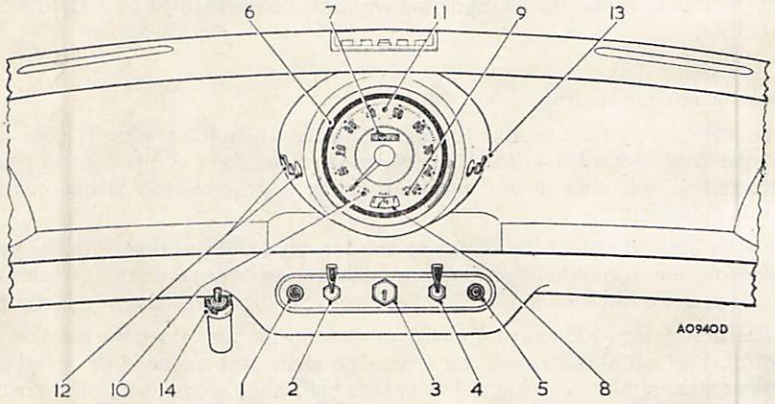
The headlight beam dipping switch is situated in the centre of the toeboard and is foot-operated. It is of the single-acting repeating type, dipping the beams on one depression and raising them on the next.

CONTROLS AND INSTRUMENTS

A warning light at the top of the instrument dial will glow red or blue (Export) when the beams are in the raised position.

Windshield wiper switch

The windshield wiper switch is positioned on the left of the ignition switch. Move the switch downwards to operate the wipers, which will function only if the ignition switch is on. Park the blades by switching off at the end of the stroke when the blades are in the required position.



The instruments and switches (Standard, Van, and Pick-up)

1. Heater control.
2. Wiper switch.
3. Ignition switch.
4. Light switch.
5. Choke control.
6. Speedometer.
7. Total distance recorder.
8. Fuel gauge.
9. Ignition warning light.
10. Oil pressure warning light.
11. Headlight main-beam warning light.
12. Parcel shelf light and switch (instrument light and switch—L.H.D. models).
13. Instrument panel light switch (parcel shelf light switch—L.H.D. models).
14. Windshield washer control.

Horn switch

The horn is operated by pressing the centre disc of the steering-wheel.

Fuel gauge, oil pressure warning light (Standard, Van, and Pick-up)

The fuel level gauge is clearly marked and is incorporated in the combined central instrument dial. To the left of the fuel gauge is an oil pressure warning light which will glow green when the ignition is switched on prior to starting the engine. The light should go out once the engine is running, but should it not do so under normal running conditions, the oil level in the engine sump should be checked and replenished as necessary. If the light continues to glow, stop the engine immediately and have the lubrication system checked.

Flashing direction indicators

The flashing direction indicators are operated (when the ignition is switched on) by a lever switch fitted on the steering-column.

On R.H.D. models the switch lever is moved upwards to operate the left-hand flashing indicators and downwards to operate the right-hand flashing indicators.

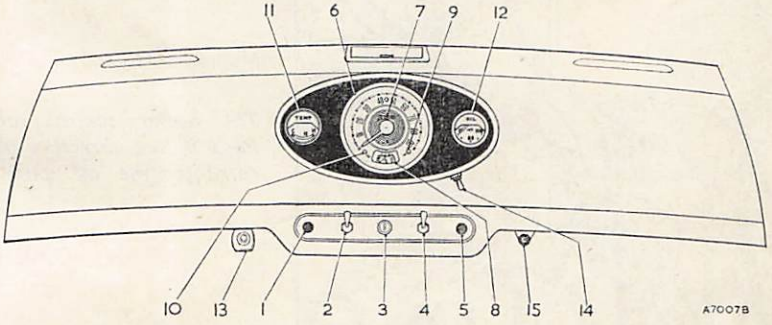
On L.H.D. models an upward movement will operate the right-hand flashing indicators and a downward movement the left-hand indicators.

A warning light in the end of the switch lever indicates that a flasher is in use.

Parcel shelf and instrument lights (Standard)

Two lights, one on each side of the central instrument, are provided to illuminate the parcel shelf and are operated by a tumbler switch located on the passenger's side of the instrument cowl.

The switch on the driver's side of the instrument cowl operates the instrument light when the vehicle lights are switched on.



The instruments and switches (Super De-luxe, and Traveller)

1. Heater control.
2. Wiper switch.
3. Ignition switch
4. Lamp switch.
5. Air-valve control.
6. Speedometer.
7. Total distance recorder.
8. Fuel level gauge.
9. Ignition warning light.
10. Headlight main-beam warning light.
11. Temperature gauge.
12. Oil pressure gauge.
13. Windshield washer control.
14. Instrument panel light switch.
15. Choke control.

Oil pressure gauge (when fitted)

To the right of the speedometer is an oil pressure gauge, which should read approximately 60 lb./sq. in. (4·22 kg./cm.^{2}) under normal running conditions.

Temperature gauge (when fitted)

The temperature of the coolant is electrically indicated by the gauge when the ignition is switched on. When the ignition is switched off the needle moves to the cold position. After the initial rise in temperature during the warming-up period any sudden upward change in the reading calls for immediate investigation.

Instrument lights (Super De-luxe, and Traveller)

The switch on the lower face of the instrument cowl at the driver's side operates the instrument lights when the pilot lights are switched on.

Roof lamp (Super De-luxe, and Traveller)

A lamp together with its integral switch is positioned in the centre of the roof above the front seats.

HEATER

Recirculatory heater

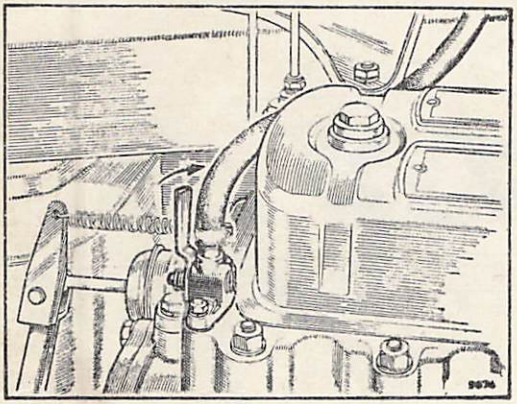
The recirculatory heater is provided with hot water from the engine cooling system and is equipped with an air-circulating blower.

The operation of the heater is quite simple, there being only three controls:

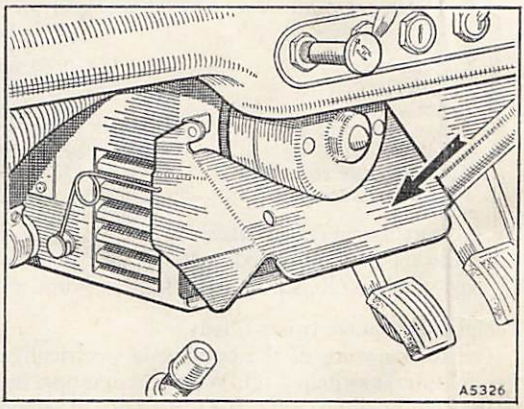
(1) A rheostat switch on the left of the control panel.

(2) A control valve on the right of the cylinder head which closes the water circulation.

(3) A hand-operated shutter on the heater unit box to deflect the hot air to the windshield for demisting under severe conditions.



The heater control valve. Push in the direction indicated for the 'off' position



The heater box with the shutter lifted to give a circulation of hot air in the vehicle. Push downwards in the direction of the arrow for demisting under severe conditions

The blower motor will only operate when the ignition is switched on. The first few degrees of movement of the switch will operate the motor at maximum speed. Further turning of the switch knob will gradually reduce the speed of the blower to regulate the heating of the vehicle interior.

The valve on the engine is intended to be closed in hot weather when heating inside the vehicle is not required. The blower may be used to circulate the air in the vehicle in hot weather, although it is primarily intended to circulate warmed air in cold weather and to provide a current of hot air onto the windshield for demisting.

When the shutter on the heater box is pushed fully downwards the maximum amount of hot air will be deflected onto the windshield; when the shutter is pulled upwards fully the maximum flow of hot air will be available for interior heating.

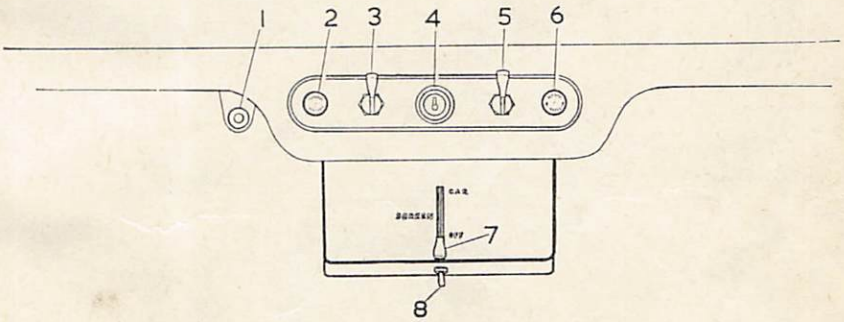
It must be appreciated that the heater unit is not necessarily cold when the circulation valve is shut off as a certain amount of heat is still transferred by conduction. The blower only circulates the interior air and is not a means of introducing fresh air into the vehicle.

See **'Frost precautions'** on page 22.

Fresh-air heater

The fresh-air heater can be used for heating and ventilating the interior of the vehicle and also for demisting and defrosting the windshield.

The distribution of air is controlled by a lever-operated shutter at the base of the heater box; the temperature and quantity of air are regulated by the controls on the switch panel.



1. Windshield washer control.
2. Heat control.
3. Windshield wiper switch.
4. Ignition Switch
5. Lights switch.
6. Choke control.
7. Air distribution shutter lever.
8. Blower Switch.

Heat control

The left hand knob on the switch panel regulates the amount of hot water circulating in the heater system. The maximum amount of heat is available when the knob is pushed fully in. Any position of the knob can be selected to meet varying conditions.

On export models where the equipment is used for the perpose of introducing unheated fresh air only into the vehicle the heat control is not fitted.

Air distribution

The shutter control lever (7) can be set in any one of three positions.

When set in the top (CAR) position, air is distributed mainly to the interior of the vehicle, with some to the windshield. In the centre (SCREEN) position most air is directed onto the windshield, with some to the vehicle interior The supply of air is cut off when the lever is in the lowest (OFF) position.

HEATER

Blower motor switch

The switch (8) operates with a side-to-side movement.

The blower motor greatly increases the supply of air to the heater unit, and thus the volume of heat output.

The blower should be switched on when maximum performance from the heating or ventilation system is required, or to compensate for the lack of ram effect at the air intake when the vehicle is travelling at low speed.

NOTE.-Should unpleasant fumes be drawn in from outside, switch off the blower motor and set the shutter operating lever in the 'OFF' position until outside conditions improve.

BODY

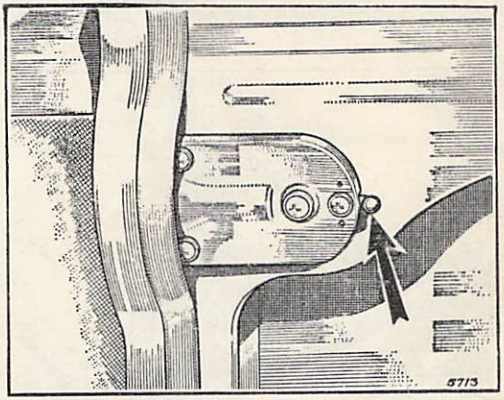
Door locks

The passenger's door may be locked from the inside by lifting up the small safety catch on the front of the door lock.

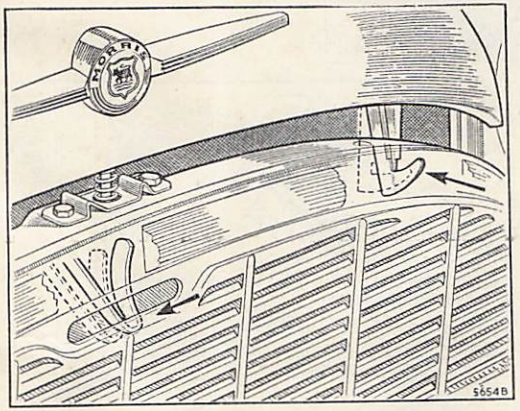
The driver's door is locked from the outside by means of the ignition key.

Bonnet lock

The bonnet is released by inserting a finger in the centre top louvre of the radiator shell and moving the release lever towards the right-hand side of the car; movement of the release lever is assisted by applying downward hand



The passenger's door is locked by lifting the safety catch on the front of the door lock



Move the release lever to the right-hand side of the car to release the bonnet catch. Release the safety catch on the left-hand side by pushing it inwards

pressure to the bonnet. The bonnet will still be held by the safety catch, which is located beneath the bonnet on the left-hand side; push the safety catch inwards and raise the bonnet, which may be held in the open position by a prop secured in a rubber clip on the right-hand side. Detach the prop from the clip and secure the end in the support bracket on the right-hand valance.

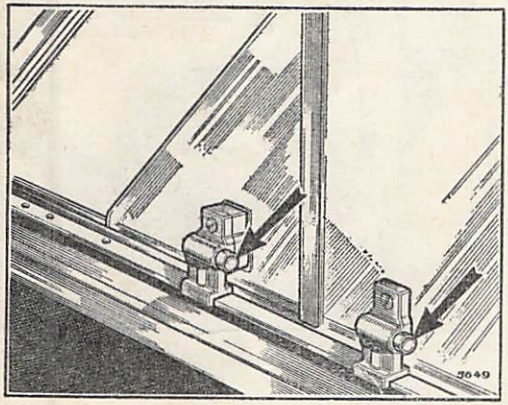
To close, raise the bonnet, stow the prop in the clip, and then lower the bonnet to engage the safety catch. Apply double hand pressure to press the bonnet down into the fully closed position. The safety catch and bonnet lock will be heard to engage.

It is essential that the bonnet release mechanism and safety catch be adequately

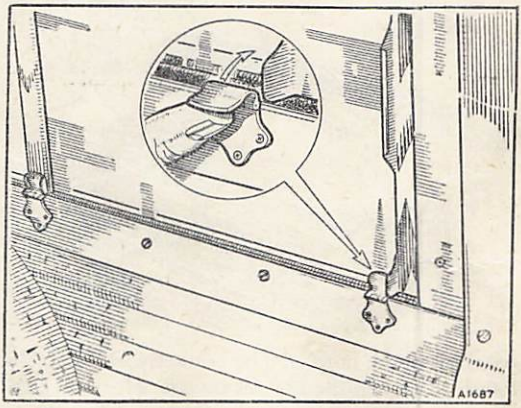
lubricated to ensure freedom of operation. Should any stiffness occur, it may result in insecure fastening of the bonnet, with a consequent risk of the bonnet flying open whilst the vehicle is in motion.

Front sliding windows

The front or rear glass of either door may be partially opened by depressing the locking plunger and sliding the glass to the desired position. The locking plunger will secure the glass in a number of positions, providing a range of openings. Opening the front sliding glasses to the second, third, or fourth locking positions will provide a draught-free ventilation and aid demisting in the winter.



The window glasses may be held in a number of positions to provide various openings



The body side sliding window locking tab, showing the method of locking the windows by folding the tab over the sliding channel to locate behind the stop plate on the hand-pull

Rear sliding windows (Traveller)

Both the glasses in the body side windows operate in sliding channels. To open the windows, fold the hinged locking tab inwards clear of the stop plate and pull the glasses to the desired position, using the hand-pull provided on the forward edge of each glass.

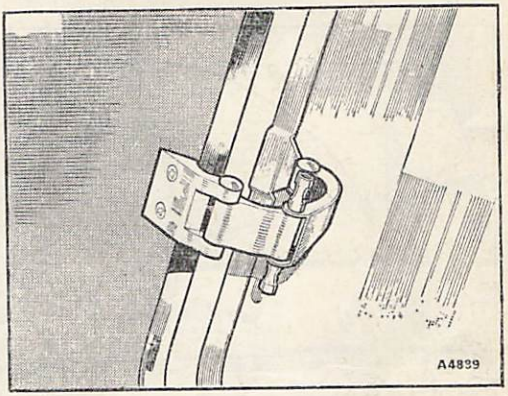
When locking the vehicle make sure that the window tabs are in the locked position.

Rear ventilators (Super De-luxe)

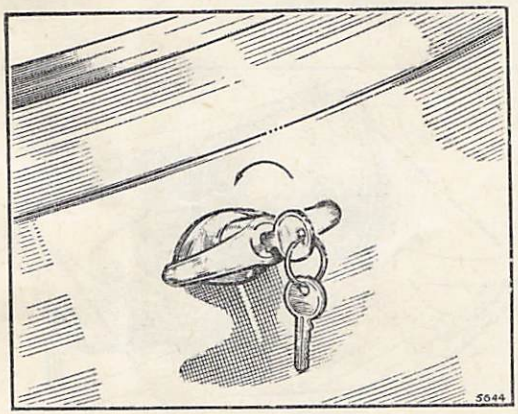
The rear ventilating windows are hinged at their front ends and are held in the closed position by a fold-over catch.

To open the window pull the catch forward and push outwards, thus extending the catch, until the desired window opening is obtained.

Close the ventilating window by pulling the centre of the catch inwards and then pushing backwards until the catch is felt to snap over into its locked position.



Showing the rear ventilating window catch partly released



Turn the handle anti-clockwise to open the boot lid. When closed, the lid may be locked with the key provided

Luggage compartment

Turn the handle in an anti-clockwise direction to release the catch. When closed, turn the handle clockwise to secure.

The lid can be locked in the closed position with the ignition key.

Additional luggage-carrying capacity is provided by making use of the lid in the open position, and to allow this the rear number-plate is hinged.

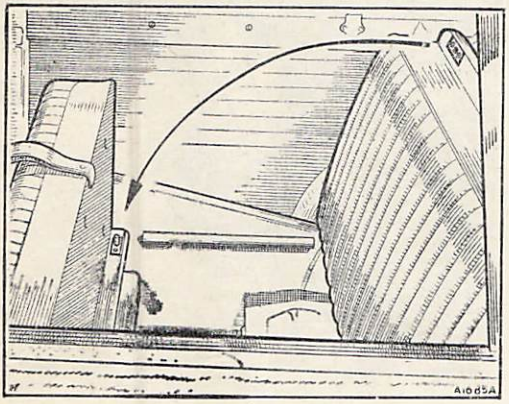
Use the lid for carrying bulky rather than heavy articles.

BODY

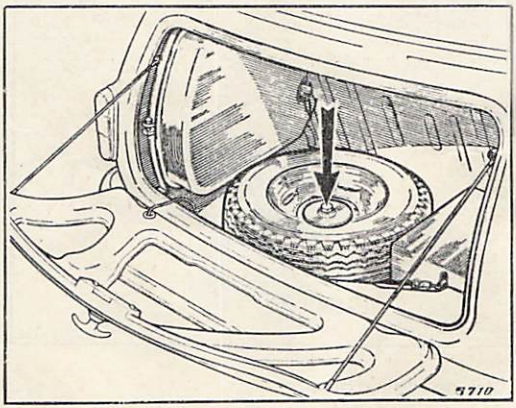
Luggage loading platform (Traveller)

The rear passenger's seat squab can be folded down to increase the area of the luggage platform when additional luggage-carrying capacity is required.

Pull the seat cushion up into a vertical position, using the central hand-pull located between the cushion and the squab. Release the two sliding bolts retaining the squab against the support brackets and fold the squab down into the position normally occupied by the seat cushion.



The rear passenger's seat cushion pulled up to allow the squab to fold down and increase the loading area of the luggage platform (Traveller)



The spare wheel is secured by a clamp plate and bolt (Saloon)

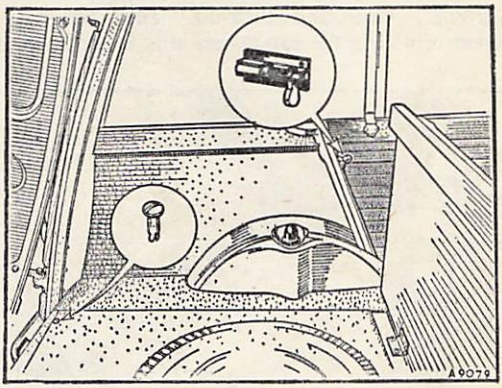
Spare wheel (Saloon)

The spare wheel is stowed in the well of the luggage compartment and is secured by a clamp plate, which may be released by unscrewing the bolt with the aid of the wheel nut spanner.

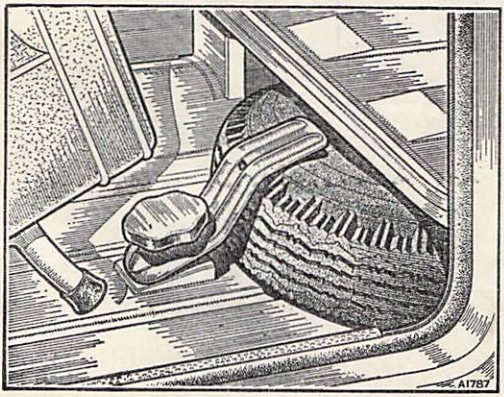
Spare wheel and battery (Traveller)

The spare wheel is carried beneath the luggage platform floor. The platform is secured in position by two slotted, quick-release fasteners. Turn the fasteners anti-clockwise to release them, and lift the platform by the hand slot provided.

The battery is situated beneath the rear seat cushion on the right-hand side.



The spare wheel location beneath the luggage platform, with the platform quick-release fastener and the rear seat squab sliding bolt shown inset (Traveller).



The spare wheel stowage and wheel locating clamp (Van and Pick-up)

Spare wheel (Van and Pick-up)

The spare wheel is carried beneath the floor and is accessible when the left-hand seat is pulled forward. Rotate the locating pin anti-clockwise to release the clamp plate.

Seat adjustment

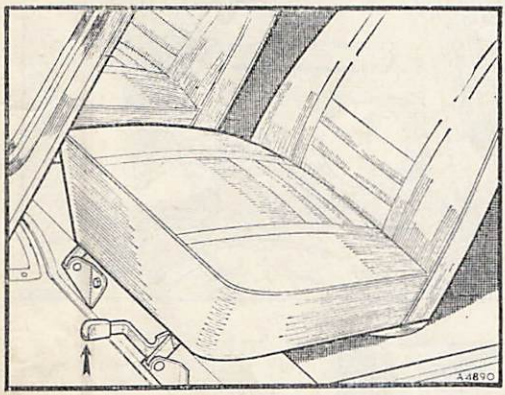
The driver's seat is adjustable and is secured in position by a spring-loaded lever which extends beyond the front of the seat. Move the lever upwards to release the seat for adjustment and move the seat either forwards or backwards as required. When the lever is released it automatically engages its stop to lock

the seat in position.

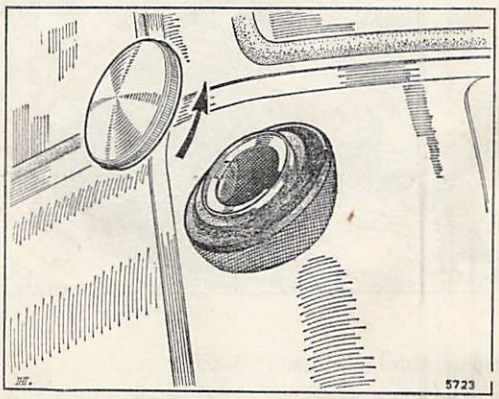
Both the driver's and front passenger's seats on the Super De-luxe models are adjustable.

Fuel filler

The fuel filler cap is located on the upper outer face of the rear left-hand wing of the Saloon, and on the lower rear corner of the rear right-hand wing on the Traveller, Van, and Pick-up. Turn the cap anti-clockwise to remove it. When replacing the cap ensure that it is turned clockwise to its fullest extent.



Move the lever upwards to release the seat for adjustment



Turn the fuel filler cap anti-clockwise to release (Saloon illustrated)

Considerable loss of fuel can occur as a result of filling the tank until the fuel is visible in the filler tube. If this is done and the vehicle is left in the sun, expansion due to heat will cause leakage, with consequent loss of and danger from exposed fuel.

When filling up, therefore:

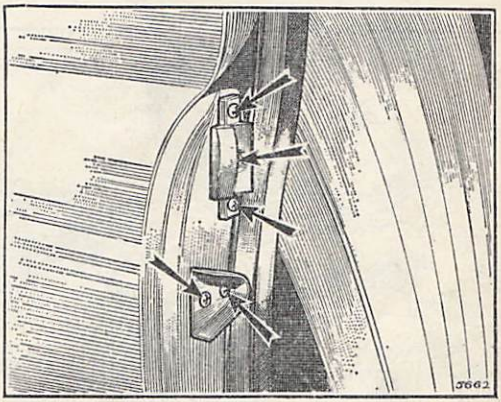
(1) Avoid filling the tank so that fuel is visible in the filler tube.

(2) If the tank is inadvertently overfilled park the car in the shade with the filler intake as high as possible.

Windshield washer (when fitted)

To obtain a discharge of water onto the windshield operate the pump by depressing the button located on the lower edge of the fascia panel rail on the left-hand side of the instrument panel. The pump will recharge itself from the container when the button is released.

The water container is located under the bonnet on the left-hand side of the dash panel. To refill, pull the container forward out of its clip, hold the moulded cap, and unscrew the container from the cap. Refill the container, refit to the cap, and replace the assembly in its clip. Under freezing conditions a suitable anti-frost additive should be mixed with the water in the container. **Do not use radiator anti-freeze.**



The door striker plate and buffer plate securing screws

Roof rack (when fitted as an accessory)

The roof rack must be regarded as a means of carrying bulky rather than heavy articles of luggage, i.e. articles which by virtue of their shape or size cannot be stowed conveniently inside the vehicle. Any weight carried on the roof must have an adverse effect on the handling of the vehicle, which must be driven with due discretion. A straight ride will not be influenced to any great degree, although cornering and behaviour in a cross-wind will be different due to the change in position of the centre of gravity and the centre of pressure.

Weight in excess of 35 lb. (15·9 kg.) should not be carried on the roof.

Door catch adjustment

The door catch is provided with adjustment to compensate for any slight wear which may take place. To adjust, slacken the two Phillips screws locating the striker plate to the door pillar and move the plate in the required direction. Do not forget to tighten up the screws firmly after adjustment.

Similar adjustment is provided on the buffer plate to enable the door-shut position to be adjusted in relation to the weather seal.

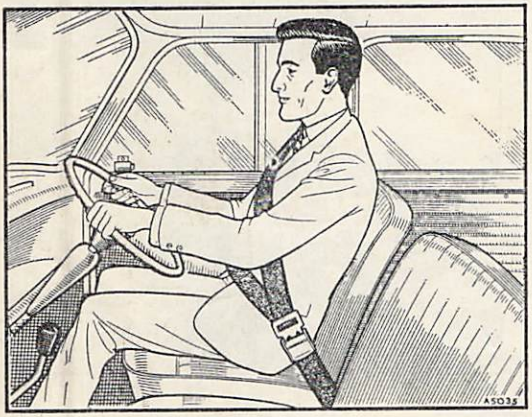
SEAT BELTS

Description

Seat belts for the front seats (Part No. 22A754) are available from B.M.C. Service Limited. Attachment points are incorporated in the construction of the body of the Saloon and the Traveller. These attachment points are located on the centre door pillars, the rear of the door sills, and the sides of the central floor tunnel.

Certain body modifications are necessary to fit seat belts to early vehicles. A kit is available for this purpose from B.M.C. Service Limited under Part No. BDA524.

The fitting of the seat belts to the car should only be carried out by an Authorized Morris Dealer or Distributor.



The seat belts in use, showing the correct position of the buckle

Use of belts

Make sure when belts are fitted to both seats that the short belt being used for either seat is attached to the side of the tunnel farthest from the wearer, i.e. the belt must cross the tunnel.

Adjust the short belt until the attached buckle is located just in front of the hip (see illustration). The upper part of the long belt passes diagonally across the chest; the lower part returns around the waist to the door sill attachment point. The buckle tongue attached to the long belt should be approximately at the belt centre.

The belt is fastened by pushing the buckle tongue into the buckle until a positive click is heard. Adjust the long belt until the waist portion is comfortably tight and it is just possible to slide a hand between the upper part of the belt and the chest. To release the buckle, lift the buckle flap to approximately 90° and exert gentle forward pressure on the belt at the same time.

Fold and stow the long belt neatly in the clip on the rear window sill immediately after use to ensure safe exit and entry for the occupants of the car.

RUNNING INSTRUCTIONS

Running-in speeds

The treatment given to a new vehicle will have an important bearing on its subsequent life, and engine speeds during this early period must be limited. The following instructions should be strictly adhered to.

During the first 500 *miles* (800 *km.*)

DO NOT exceed 45 m.p.h. (72 km.p.h.).

DO NOT drive at full throttle in any gear.

DO NOT allow the engine to labour in any gear.

Starting up

Before starting up the engine make sure that the gear lever is in the neutral position. When starting from cold pull out the choke or mixture control knob. Switch on the ignition and operate the starter switch. The crankshaft will be rotated and after a second or two the engine should start up, when the switch must immediately be released. It is bad practice to use the starter switch continuously if the engine refuses to start as the starter takes a very heavy current from the battery and may discharge it completely.

After the engine has run for a few minutes, or almost immediately in warm weather, the choke control knob should be pushed in to the 'weak' position. On no account must the engine be run for any length of time with this control pulled fully out or neat fuel will be drawn into the cylinders and considerable damage may be caused. The control should be returned to its normal position as soon as the engine is warm enough to run evenly without its use. It is not, necessary—in fact, it is detrimental—to use the mixture or choke control when starting a warm engine.

Carburetter heaters

Carburetter induction and suction chamber heaters are fitted to cars in countries where conditions of extreme cold exist. The heaters are thermostatically controlled and are brought into operation when the ignition is switched on. Under conditions of extreme cold it will be necessary to allow a waiting period of up to four minutes between switching on the ignition and starting the engine in order to allow the heaters to generate sufficient heat to ensure easy starting. This waiting period may be shortened according to the severity of the conditions under which the vehicle may be required to operate. In the event of the engine failing to start a further waiting period with the ignition switched on is recommended rather than continued use of the starter.

Warming up

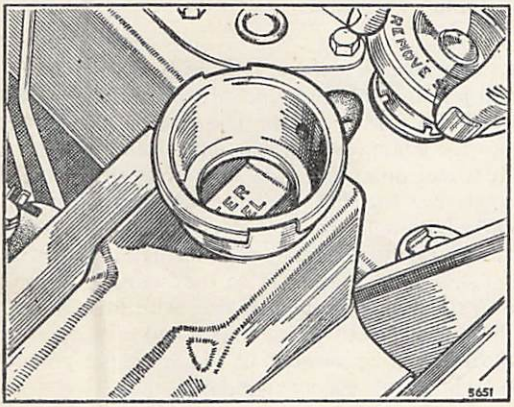
Research has proved that the practice of warming up an engine by allowing it to idle slowly is definitely harmful. The correct procedure is to let the engine run fairly fast, approximately 1,000 r.p.m., corresponding to a speed of 14·8 m.p.h. (23·7 km.p.h.) in top gear, so that it attains its correct working temperature as quickly as possible. Allowing the engine to work slowly in a cold state leads to excessive cylinder wear, and far less damage is done by driving the car, straight on the road from cold than by letting the engine idle slowly in the garage.

Wet brakes

After the vehicle has been washed or driven through water the brake linings may become wet. To dry them apply the brakes several times with the vehicle moving slowly. Driving with wet brakes can be dangerous. Keep the hand brake fully on when using high-pressure washing equipment.

COOLING SYSTEM

A pressurized cooling system is used on this vehicle and the pressure must be released gradually when removing the radiator filler cap while the system is hot. It is advisable to protect the hands against escaping steam and then turn the cap slowly anti-clockwise until the resistance of the safety stop is felt. Leave the cap in this position until all pressure is released. Press the cap downwards against the spring to clear the safety stops and continue turning until it can be lifted off.



Press the cap downwards and turn it anti-clockwise to release the radiator cap. A water level indicator is fitted inside the header tank

Frost precautions

Water, when it freezes, expands, and if precautions are not taken there is considerable risk of bursting the radiator, cylinder block, or heater (where fitted). Such damage may be avoided by draining the cooling system when the vehicle is left for any length of time in frosty weather, or by adding anti-freeze to the water. When a heater is fitted anti-freeze **must** be used as no provision is made for draining the unit.

Before adding anti-freeze mixture the cooling system must be drained and flushed through by inserting a hose in the filling orifice and allowing water to flow through until clean. The taps should be closed after allowing all the water to drain away and the anti-freeze should be poured in first, followed by the water.

The cooling system is of the pressurized type and relatively high temperatures are developed in the radiator header tank. For this reason anti-freeze solutions having an alcohol base are unsuitable owing to their high evaporation rate producing a rapid loss of coolant and a consequent interruption of circulation.

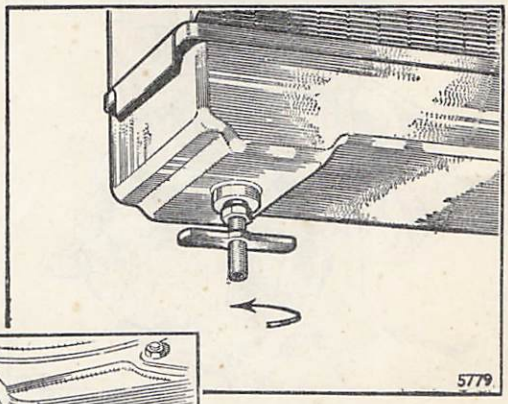
Only anti-freeze of the ethylene glycol type incorporating the correct type of corrosion inhibitor is suitable and owners are recommended to use Bluecol

Solution (%)	*Commences freezing at*		*Absolute safe limit*		*Quantity of anti-freeze required*
	° *C.*	° *F.*	° *C.*	° *F.*	
20	−9	16	−19	−3	1¼ pts. (·71 litre, 1·5 U.S. pts.)
25	−13	9	−26	−15	1½ pts. (·85 litre, 1·8 U.S. pts.)
30	−16	3	−33	−28	2 pts. (1·14 litres, 2·4 U.S. pts.)

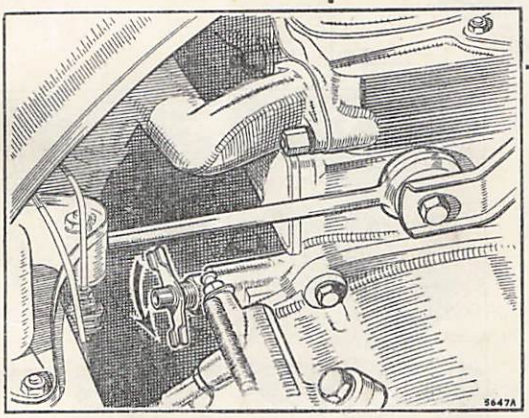
Anti-freeze. We also approve the use of any anti-freeze which conforms to Specification B.S.3151 or B.S.3152.

The amounts of anti-freeze required quoted in the table refer to vehicles fitted with a heater. When a heater is not fitted the amounts can be reduced accordingly, using the percentage table to calculate the amount required.

Do not use radiator anti-freeze solution in the windshield-washing equipment (where fitted).



Access to the radiator drain tap is gained from under the front of the vehicle. Turn the tap anti-clockwise (facing tap) to open



The drain tap for the cylinder block is located on the rear of the block

Draining the cooling system

Two drain taps are provided for draining the cooling system: one is at the base of the radiator on the forward side and the other is on the rear of the cylinder block. Both are accessible from under the bonnet and both must be opened and the filler cap removed to drain the cooling system completely. If the system contains anti-freeze remember to collect it in a clean container for future use.

Filling the cooling system

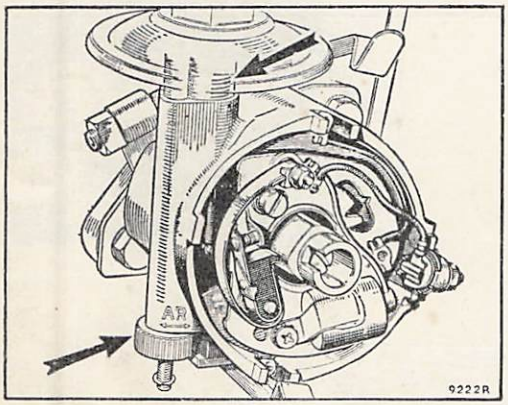
To avoid wastage by overflow add just sufficient coolant to cover the bottom of the header tank. Run the engine until it is hot and add sufficient coolant to bring the surface to the level of the indicator positioned inside the header tank below the filler neck.

IGNITION EQUIPMENT

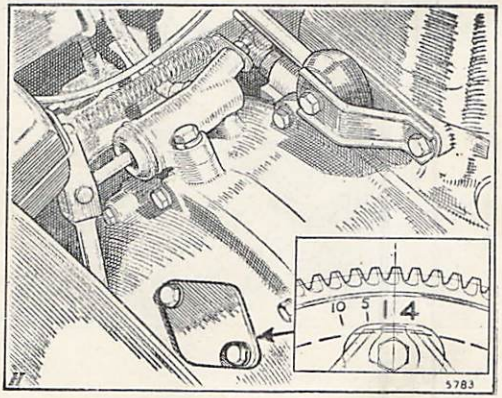
Ignition adjustment

The static ignition timing can be adjusted to suit varying fuels. The adjustment nut is indicated by the lower arrow in the illustration below, and turning the nut clockwise retards the ignition. Turning it anti-clockwise advances the ignition.

The barrel of the screwed spindle has graduations to indicate the settings.



The ignition adjusting nut and graduated scale



The pointer and timing marks on the flywheel may be seen with the aid of a mirror after removing the inspection cover. T.D.C. position is indicated by the mark 1/4. Marks giving 5° and 10° B.T.D.C. positions are also provided

Static ignition timing

The static ignition timing for engines fitted with a distributor suitable for operating with premium grade fuel is T.D.C. The special distributor fitted to permit the use of regular grade fuels of 90° octane and below can be identified by the letters 'FA' included in the engine serial number. The static ignition timing for engines fitted with this distributor is 7° B.T.D.C.

The ignition point can be reset if necessary by adjusting the knurled nut on the distributor body. Each graduation on the barrel is equal to approximately 5° of timing movement and one graduation is equal to 55 clicks on the knurled nut.

The range of adjustment provided by the micrometer adjuster is ample to deal with any variations normally encountered.

Do not disturb the pinch-clip at the base of the distributor unless absolutely necessary.

Top dead centre

Remove the inspection cover from the top of the clutch housing, and with the aid of a mirror look for the small pointer projecting below the top of the aperture.

Three marks are provided on the flywheel face—namely, '1/4', which is the T.D.C. position for No. 1 or No. 4 cylinder, and two further marks giving 5° and 10° B.T.D.C. positions.

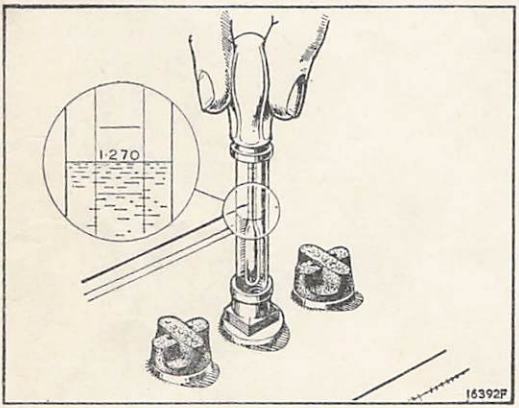
To rotate the flywheel to the required position engage top gear and push the car forward. **Make sure that the ignition is switched off.**

ELECTRICAL EQUIPMENT

Checking the specific gravity

Check the condition of the battery by taking hydrometer readings of the specific gravity of the electrolyte in each of the cells. Readings should not be taken immediately after topping up the cells. The hydrometer must be held vertically and the readings taken at eye-level. Check that the float is free and take care not to draw in too much electrolyte. The specific gravity readings and their indications are as follows:

	For climates below 26·6° C. (80° F.)	*For climates above 26·6° C. (80° F.)*
Battery fully charged ..	1·270 to 1·290	1·210 to 1·230
Battery about half-discharged	1·190 to 1·210	1·130 to 1·150
Battery fully discharged ..	1·110 to 1·130	1·050 to 1·070



When taking hydrometer readings make certain that the float is free, hold the tube vertically, and do not draw in too much electrolyte. The readings must be taken at eye-level

These figures are given assuming that the temperature of the solution is about 60° F. (15° C.). If the temperature of the electrolyte exceeds 60° F. (15° C.) ·002 must be added to the hydrometer for each 5° F. rise to give the true specific gravity. Similarly, ·002 must be subtracted from the hydrometer reading for every 5° F. below 60° F. (15° C.). The readings for all cells should be approximately the same. If one cell gives a reading very different from the rest it may be that acid has been spilled or has leaked from this particular cell, or there may be a short circuit between the plates, in which case the battery should be examined by a Distributor or Dealer.

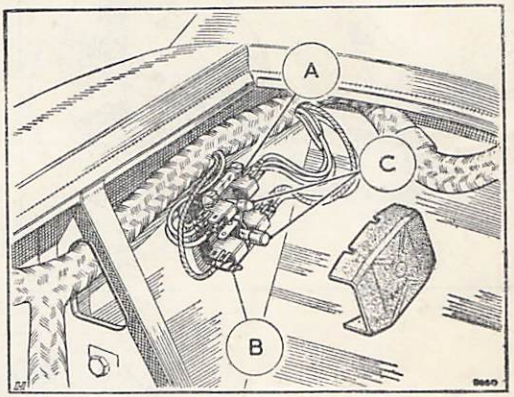
Top up the cells with distilled water weekly if necessary. Do not use tap-water and do not use a naked light when examining the conditions of the cells.

Do not overfill, and always wipe away all dirt and moisture from the top of the battery.

Never leave the battery in a discharged condition for any length of time. Have it fully charged, and every fortnight give it a short refreshing charge to prevent any tendency for the plates to become permanently sulphated.

Fuses

The two fuses and two spares are to be found in a holder covered by a plastic push-on-type lid on the right-hand side of the engine bulkhead. One **35-amp.** fuse connecting terminals 'A3' and 'A4' protects the circuits which operate only when the ignition is switched on. The other fused circuits are also protected by a **35-amp.** fuse connecting the terminals marked 'A1' and 'A2'. Take care to use only fuses of the correct value when replacements are fitted.



The fuses are carried in the separate fuse block mounted on the right-hand valance. (A) *and* (B) *indicate ignition and ignition auxiliary circuits*; (C) *spare fuses*

Spare fuses

Spare fuses are provided, and it is important to use only the correct replacement fuse. The fusing value is marked on a coloured paper slip inside the glass tube of the fuse. If the new fuse blows immediately and the cause of the trouble cannot be found have the equipment examined by a Distributor or Dealer.

Voltage regulator

This is a sealed unit, located on the right-hand wing valance, which controls the charging rate of the dynamo in accordance with the needs of the battery. It requires no attention and should not be disturbed.

Jammed starter pinion

In the event of the starter pinion becoming jammed in mesh with the flywheel, it can usually be freed by turning the starter armature by means of a spanner applied to the shaft extension at the commutator end.

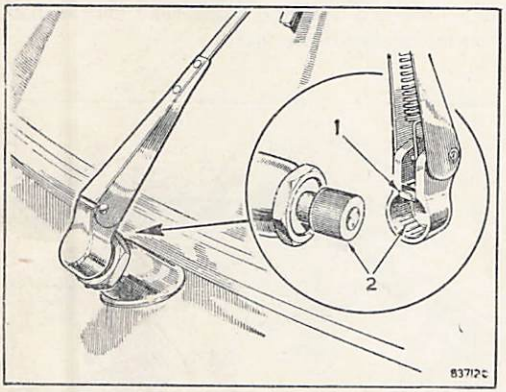
The shaft extension is protected by a removable cap.

Windshield wiper

No adjustment or lubrication is necessary as the gears are packed with grease before leaving the Factory.

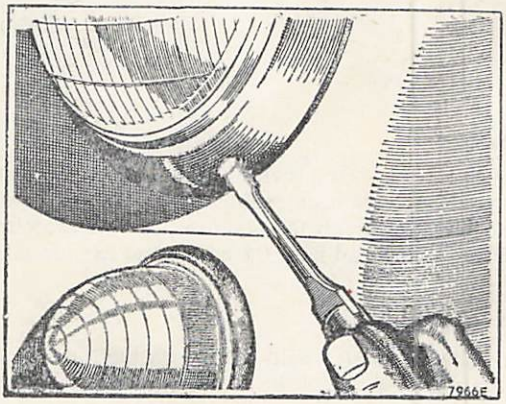
Should it be necessary to reposition the wiper arms on their spindles, they

can be withdrawn by holding back the small retaining spring clip, which locates in a register in the spindle, and withdrawing the arm. Replace the arm on the required spline and push it hard down on the spindle until it is retained by the spring clip.



Raise the retaining clip (1) *and withdraw the arm from the splined spindle* (2)

The headlamp rim securing screw is located at the bottom of the rim



Headlamps (R.H.D. and L.H.D. except Europe)

Unscrew the securing screw at the bottom of the lamp rim and lift off the rim. Remove the dust-excluding rubber to reveal three spring-loaded screws. Press the light unit inwards against the tension of the springs and turn it in an anti-clockwise direction until the heads of the screws can pass through the enlarged ends of the keyhole slots in the rim.

Withdrawal of the light unit gives immediate access to the bulb carrier for replacement. Twist the back-shell anti-clockwise and pull it off. The bulb can then be withdrawn from its holder.

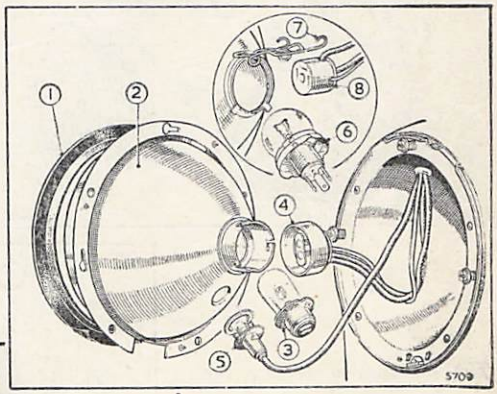
Fit the replacement bulb in the holder with the slot in its disc in engagement with the projections in the holder. Engage the projections on the back-shell with the holder slots, press on, and twist to the right until its catch engages.

Headlamps (European type)

Access to the light unit is obtained in the same manner as that described in the previous paragraph for right-hand-drive cars, but the bulb is released from the reflector by withdrawing the three-pin socket and pinching the two ends of the wire retaining clip to clear the bulb flange. When replacing the bulb care must be taken to see that the rectangular pip on the bulb flange engages the slot in the reflector seating. Replace the spring clip with its coil resting in the base of the bulb flange and engaging the two retaining lugs on the reflector seating for the bulb.

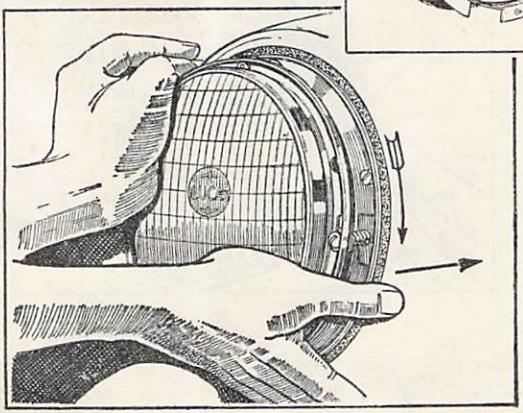
Headlamps (North American, sealed-beam)

To change a sealed-beam light unit remove the lamp rim, slacken the three retaining screws securing the light unit retaining rim, and rotate it anti-clockwise to disengage the slotted holes from the heads of the retaining screws. Pull the unit forward to release it from the back-shell.



The headlamp light unit

1. Rubber seal.
2. Reflector.
3. Bulb.
4. Back-shell.
5. Pilot light (U.K. only).
6. Bulb. } European.
7. Bulb retainer. } European.
8. Socket.



Replacing the light unit

Replacing the headlamp unit and light front rim

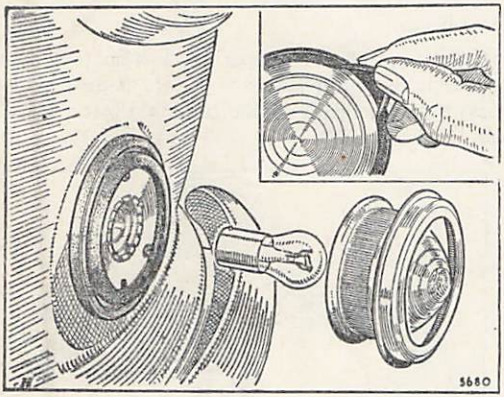
Position the light unit so that the heads of the adjusting screws pass through the slotted holes in the flange, press the unit inwards, and turn it in a clockwise direction as far as it will go. Replace the dust excluding rubber and refit the front rim

ELECTRICAL EQUIPMENT

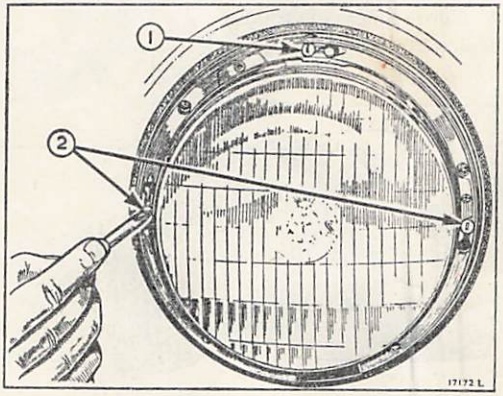
Setting the headlight beams

The lamps should be set so that the main driving beams are parallel with the road surface or in accordance with local regulations. If adjustment is required remove the rim as described on page 28. Vertical adjustment is made by turning the screw at the top of the lamp. Horizontal adjustment can be effected by using the adjustment screws on each side of the light unit. Only one horizontal adjustment screw is provided on the sealed-beam-type light unit.

Checking and resetting of headlight beams should be entrusted to a Distributor or Dealer, who will have specialist equipment available for this purpose.



Turn back the rubber sealing flange to remove the lamp rim. On vehicles to be used outside the United Kingdom this lamp serves the dual purpose of pilot and flashing direction indicator lamp. A double-filament bulb is fitted with offset locating pegs.



The method of setting the headlight beams

1. Vertical setting adjusting screw.
2. Horizontal setting adjusting screw.

Pilot lamps (United Kingdom)

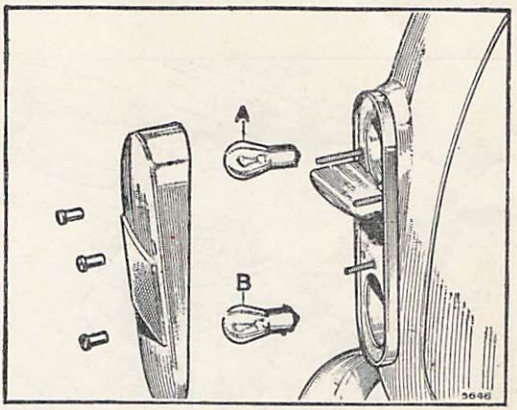
Vehicles built for use in the United Kingdom have the pilot lamps integral with the headlamps. To renew a pilot lamp bulb remove the unit as described on page 28. The bulb holder is of the push-in type, and after withdrawing the holder from the light unit the bulb may easily be removed or replaced.

Pilot and flashing indicator lamps—front (Export)

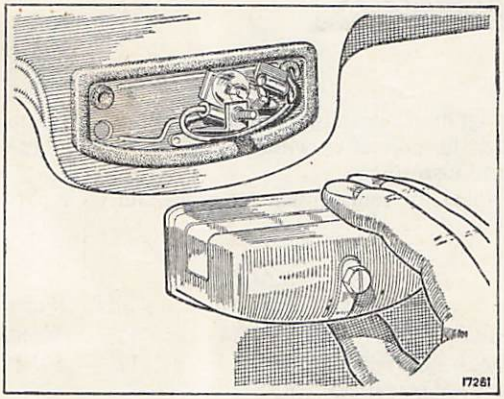
Vehicles built for use other than in the United Kingdom have combined pilot and flashing indicator lamps.

To renew a bulb, fold back the rubber flange and remove the plated rim and lamp glass. Only the fingers should be used to fold back the rubber flange.

When replacing a bulb, note that the locating pins are offset to ensure correct replacement. When replacing the lamp glass ensure that the chromium rim is secured all round by the rubber flange.



The rear lamp cover removed, allowing access to the flashing direction indicator bulb (A) *and the stop/tail bulb* (B). *The latter, being a double-filament type, also has offset locating pegs*



The number-plate lamp cover removed, giving access to the bulb

Front flashing indicator lamps (United Kingdom)

Access to a bulb is the same as that described for flashing indicators on Export cars; the only difference is that the bulbs have a single filament and therefore the locating pegs are not offset.

Stop/tail/and flashing indicator lamps

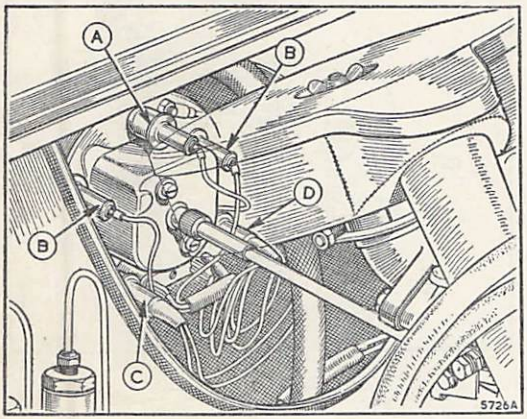
When it is necessary to renew a bulb, withdraw the three screws to release the lamp cover.

In the top compartment is fitted the flashing indicator bulb, beneath which is fitted the stop and tail lamp bulb. The latter is of the double-filament type,

giving a marked increase in illumination on brake application to provide a stop warning. This bulb also has offset locating pins to ensure correct replacement.

Number-plate lamp

The number-plate lamp operates only when the pilot lights and tail lights are switched on. To renew the bulb, unscrew the slotted screw and release the domed cover.



The panel and warning light bulb holders

A. Headlight main-beam warning light.
B. Instrument illumination lights.
C. Ignition warning light.
D. Oil pressure warning light.

Panel and warning light bulbs

The warning light bulbs for ignition, headlights beam, and oil pressure indicators are removed from under the bonnet by withdrawing the push-in-type holders from the rear of the central instrument.

A list of the correct types of bulbs for replacement purposes and their part numbers appear below.

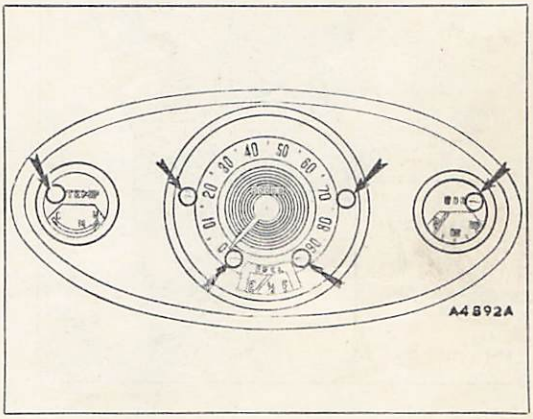
Replacement bulbs	*B.M.C. Part No.*	*Volts*	*Watts*
Headlamps, R.H.D. (except Sweden—dip left) ..	BFS414	12	50/40
Headlamps, L.H.D. (except Europe—dip right)..	BFS415	12	50/40
Headlamps, Europe (except France—dip vertical)	BFS410	12	45/40
Headlamps, France (dip vertical)	BFS411	12	45/40
Pilot lamps	BFS989	12	6
Pilot lamps and front flashing direction indicators	BFS380	12	21/6
Flashing direction indicators—front (U.K. only)	BFS382	12	21
Flashing direction indicators—rear	BFS382	12	21
Number-plate lamp	BFS989	12	6
Panel and warning lights	BFS987	12	2·2
Direction indicator warning light (Lilliput bulb)	BFS280	12	·75
Tail and stop lamps	BFS380	12	21/6
Parcel shelf light	BFS987	12	2·2
Rear companion pocket lamps	BFS987	12	2·2
Roof lamp (when fitted)	BFS254	12	6

Panel and warning light bulbs (Super De-luxe, and Traveller)

Remove the warning light bulbs for ignition and headlight beam and the speedometer illumination bulb from under the bonnet by withdrawing the push-in-type holders from the rear of the speedometer.

To remove the bulbs from the oil and temperature gauges unscrew the four small Phillips screws visible on the instrument panel inside the car and withdraw the panel cover and shroud to expose the gauges. The bulb holders can then be pulled out from the rear of the gauges.

Refitting is a reversal of the removal procedure. Ensure that when the shroud is being refitted the panel light switch is positioned to avoid the switch terminals coming into contact with the oil gauge pipe and causing a short circuit in the electrical system.



The panel and warning light bulb holders (Super De-luxe and Traveller)

Roof lamp (when fitted)

To renew a bulb, squeeze the forward and rear faces of the plastic lens together until the retaining lugs of the lens are clear of the sockets in the lamp base. The lens can then be withdrawn and the festoon-type bulb pulled out of its holder.

Fuel pump

The fuel pump is mounted on the left-hand side-member of the rear underframe, and is accessible from beneath the car.

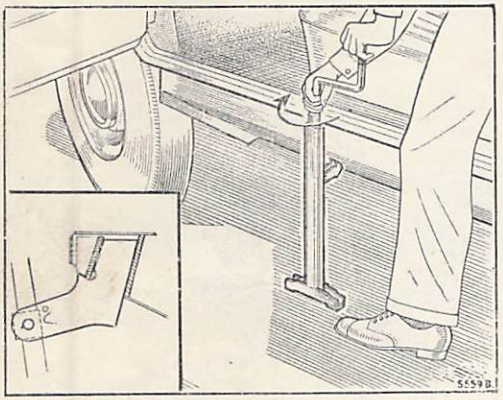
Should the pump fail, check the electrical feed and earth connections on the pump body to ensure they are making good contact and that the retaining nuts are reasonably tight. Examine and, if necessary, tighten up the inlet and delivery connections at the pump unions. Air leakage into the fuel line on the inlet side will cause a falling off in the fuel delivery rate, with consequent fuel starvation at high engine speeds.

JACKING AND WHEEL REMOVAL

Hub cover removal

Insert the flattened end of the wheelbrace into one of the recesses between the edge of the cover and road wheel and prise off the cover with a sideways motion of the wheelbrace. Do not use an upwards levering motion. To refit the cover place the outer rim over two of the protrusions on the wheel centre and give the outer face a sharp blow with the fist over the third protrusion.

Remove the hub cover fitted to the Super De-luxe models and the Traveller from the road wheel with the flattened end of the wheelbrace inserted between the lip of the cover and the wheel rim. Lever the cover away from the wheel, using the tyre as a fulcrum at a point diametrically opposit the tyre valve.



Remove the rubber plug from the jacking socket and insert the lifting arm of the jack. **NOTE.—The bar must be fully inserted into the socket before attempting to lift the car with the jack**

Jacking (vehicles equipped for side-jacking)

This jack is designed to lift one side of the vehicle at a time. Remove the rubber plug from the socket below the door and insert the arm of the jack into it. The jack should lean slightly outwards at the top to allow for the radial movement of the vehicle as it is raised. Hold the jacking bar up into the jacking bracket with one hand whilst turning the jack screw with the other hand until lifting begins. **THE BAR MUST BE FULLY INSERTED IN THE JACKING BRACKET (SEE ILLUSTRATION INSET), OTHERWISE THE JACK WILL BECOME DAMAGED AND THE BRACKET DISTORTED.**

Removing a road wheel

Apply the hand brake and slacken the road wheel nuts before commencing the jacking operation. If on a hill it is advisable to scotch one or even two of the road wheels.

When replacing the wheel nuts ensure that the tapered ends face towards the wheel.

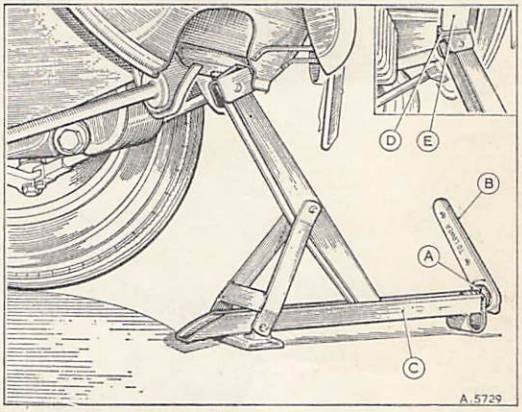
Jack maintenance

If the jack is neglected it may be difficult to use in a roadside emergency. Examine it occasionally, clean off accumulated dust, and lightly oil the thread to prevent the formation of rust.

Jacking (cantilever jack)

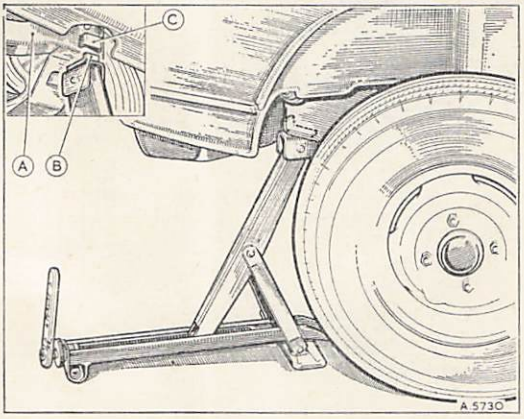
Front wheels

Turn the milled nut by hand until the head of the jack is in contact with the front sub-frame cross-member. Position the jack as close as possible to the sub-frame side-member, with the projecting tongue of the jack head facing rearwards. Set the jack body at an angle to the centre-line of the car to avoid fouling the number-plate. To raise the vehicle, fit the ratchet handle to the operating square on the jack, with the face of the handle stamped 'RAISE' outwards. Operate the handle until the wheel is clear of the ground.



The jack in position with the front wheel raised

A. Milled nut.
B. Ratchet handle.
C. Jack body.
D. Tongue of the jack head.
E. Sub-frame cross-member.



The jack positioned under the rear cross-member (A) *with the tongue of the jack pad* (B) *about to enter the socket* (C) *provided on the rear face of the cross-member*

To lower, reverse the ratchet handle on the square so that the face stamped 'LOWER' is outwards and operate the handle in the direction of the arrow stamped on the handle.

Rear wheels

Raise the jack by means of the milled nut until the tongue on the jack head engages in the socket provided on the rear cross-member. Set the jack body at an angle to the centre-line of the vehicle to avoid fouling the fuel tank. Operate the jack with the ratchet handle as described under '*Front wheels*'.

CARE OF TYRES

Tyre pressures

The recommended tyre pressures under normal conditions are:

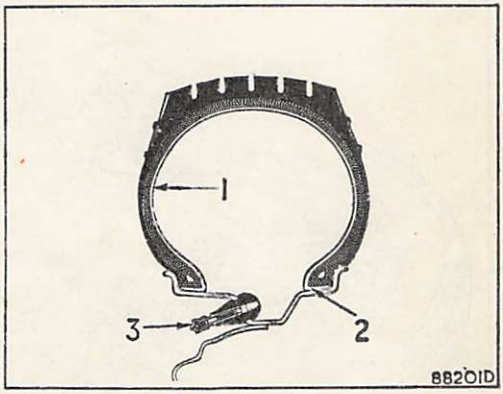
Front, 24 lb./sq. in. (1·68 kg./cm.²).

Rear, 22 lb./sq. in. (1·55 kg./cm.²).

When the car is fully laden the rear pressures should be increased to 24 lb./sq. in. (1·68 kg./cm.²).

Maintain the correct pressures by checking with an accurate tyre gauge at least once a week and inflating if necessary.

Any unusual pressure loss should be investigated. Under-inflation causes rapid tyre wear, and even more serious is the possible damage to the cords of the fabric owing to excessive bending or flexing of the cover walls.



A section through a tubeless tyre

1. Air-retaining liner.
2. Rubber air-seal.
3. Valve.

Tubeless tyres

The air seal in a tubeless tyre is formed by the tyre bead on the wheel rim, as can be seen in the above illustration, and the valve is sealed against air leaks by the large 'mushroom' head on the inside of the rim.

In any work carried out great care must be used to avoid damage to the bead; spoon-shaped tyre levers in good condition are essential.

Removal and replacement procedure is similar to that used for conventional covers (see instructions on page 38).

Tyre examination

Flints and other sharp objects should be removed with a penknife or similar tool; if neglected, they may work through the cover.

Penetration does not normally result in deflation and the tyres should be repaired when convenient. Penetrations by objects of small diameter can be repaired with the tyre manufacturer's plugging kit, while more extensive damage requires the removal of the tyre for vulcanizing.

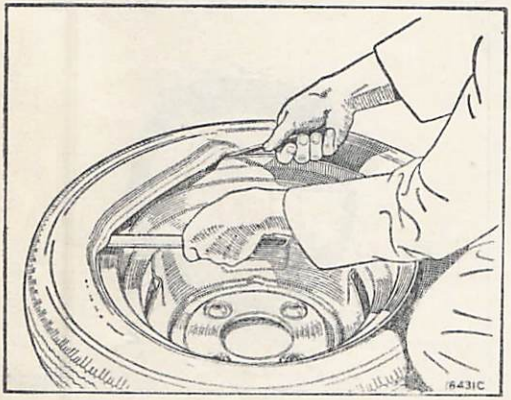
Any oil or grease which may get onto the tyres should be cleaned off by using fuel sparingly. Do not use paraffin (kerosene), which has a detrimental effect on rubber.

TUBELESS TYRES

Tyre removal and replacement

Remove the valve interior to deflate the tyre completely and push both cover edges into the base of the rim at the point diametrically opposite to the valve. Lubricate the tyre beads and the tyre fitting levers with Dunlop Tyre Bead Lubricant or a thin vegetable oil soap solution. Lever the cover over the back (inside) rim edge in the region of the valve, a small area at a time, to avoid straining or damaging the tyre beads. Continue round the tyre until the bead on one side is completely free. Stand the tyre and wheel upright, keeping the remaining bead in the well-base of the wheel rim. Lever the tyre bead at the top of the wheel over the rim flange, and at the same time push the wheel away from the cover with the other hand.

NOTE.—Tyre removal and refitting can only be carried out over the inner rim of the road wheel; tyres cannot be removed or refitted over the outer rim.



Lever the cover edge over the back (inside) rim in the valve area

A similar technique must be employed when replacing the tyre. Use Dunlop Tyre Bead Lubricant on the rim beads and fit the tyre over the back rim of the wheel. A white or coloured spot in the neighbourhood of the bead will indicate the lightest point of the tyre. This spot should be fitted in line with the valve to ensure the best wheel balance and good steering. Keep the beaded edge in the well-base of the wheel rim and carefully lever the tyre edge over the wheel rim on the opposite side. Great care must be exercised to avoid damage to the tyre bead; the tyre levers used must be in good condition.

Initial inflation can be carried out with a foot pump and a rope tourniquet around the periphery of the tyre to obtain a seal between the tyre edge and the wheel rim, but it is more easily accomplished with a compressed-air line.

Changing positions of tyres

To obtain the maximum tyre mileage and to reduce irregular tread wear, occasionally interchange the front and rear wheels diagonally, bringing the spare wheel into use.

Impact fractures

Excessive local distortion as a result of striking a kerb, a loose brick, a deep pot-hole, etc., may cause the casing cords to fracture. Every effort should be made to avoid such obstacles.

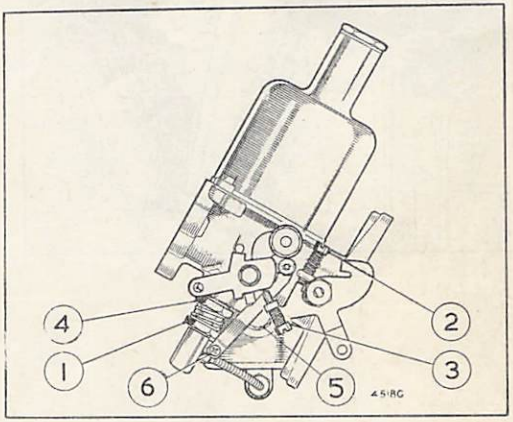
CARBURETTER

Carburetter jet adjustment

Uneven firing can be caused by a mixture which is too weak; the exhaust beat then is uneven with a 'splashy' or irregular type of misfire, and the exhaust is colourless. Uneven firing can also be caused by a mixture which is too rich; the misfire is then of a 'rhythmical' or regular type, coupled with a blackish exhaust.

According to the symptoms, screw the jet adjusting nut (1), only one 'flat' of the hexagon at a time, either upwards for weakening or downwards for enriching, until the **fastest idling speed is obtained consistent with even firing.**

Under no circumstances should the jet locking nut (4) be slackened as this will cause misalignment of the main jet, resulting in the jamming of the piston.



The carburetter

1. Jet adjusting nut.
2. Throttle stop screw.
3. 'Fast-idle' adjustment screw.
4. Jet locknut.
5. Float-chamber securing bolt.
6. Jet link securing screw.

When adjusting the mixture strength it may be helpful if the idling speed of the engine is increased by about half a turn of the throttle stop screw (2)—to be suitably reduced later when the correct mixture strength has been obtained.

When the mixture and slow-running speed are satisfactory, then the remainder of the throttle range should also be correct.

Carburetter slow-running adjustment

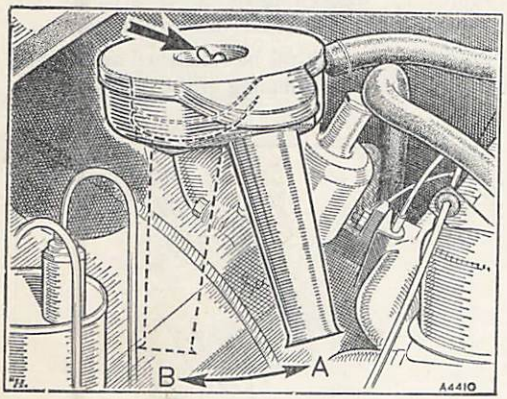
After the first 1,000 miles (1600 km.) or so, when the engine is fully run in, the slow-running adjustment may need a little attention—this should be done when the engine has attained its normal running temperature. If the slow-running speed only (not mixture strength) needs correction, this can be made on the throttle stop screw (2) by turning it clockwise to increase and anti-clockwise to decrease the engine speed. If, however, the engine beat is uneven, denoting irregular firing, the mixture strength may need adjustment—but remember that defective compression, a restricted fuel feed, or faulty ignition may also cause misfiring.

After the slow-running has been adjusted check that there is a clearance of about $\frac{1}{64}$ in. (·40 mm.) between the 'fast-idle' adjustment screw (3) and the face of the cam.

CARBURETTER

Air cleaner intake positions

In order to obviate the possibility of the carburetter icing up, the air cleaner intake should be positioned adjacent to the exhaust manifold when the vehicle is operating in cold and winter conditions. During the summer and in countries where the climatic conditions are tropical or temperate it is advisable to move the intake away from the manifold to the position (B) shown in the illustration.



Slacken the wing nut and turn the air cleaner intake to position (A) *for winter operating conditions and to* (B) *for summer conditions and in warm climates*

MAINTENANCE ATTENTION

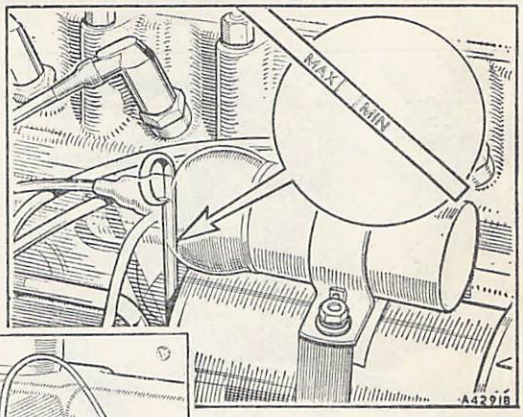
DAILY

Radiator

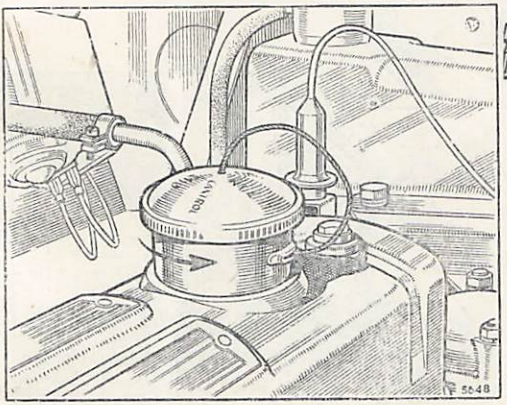
Check the level of water in the radiator, and top up if necessary.

Check engine and transmission unit oil level

The engine and transmission oil is contained in a common sump. The correct oil level is indicated by the 'MAX' mark on the dipstick, which is to be found on the forward side of the engine, and the level of oil should be maintained to this mark.



The engine/transmission unit oil level dipstick is located on the forward side of the cylinder block



The oil filler cap must be turned anti-clockwise to release it

Filling up with oil

The oil filler is situated on top of the rocker cover, and it is provided with a quick-action cap. Clean, fresh oil is essential. The use of an engine oil to Ref. A, page 68 is recommended.

WEEKLY

Tyre pressures

Check all tyre pressures, using a tyre gauge, and inflate, if necessary, to the recommended pressures. Ensure that the valves are fitted with screw caps, inspect the tyres for possible damage, and wipe off any oil or grease.

Battery

Check the electrolyte level, and top up with distilled water if necessary.

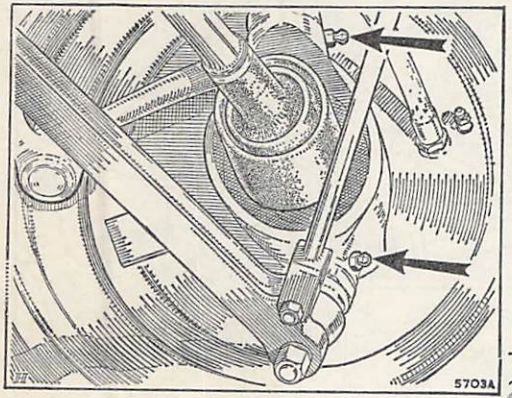
EVERY 3,000 MILES (5000 Km.)

Grease points

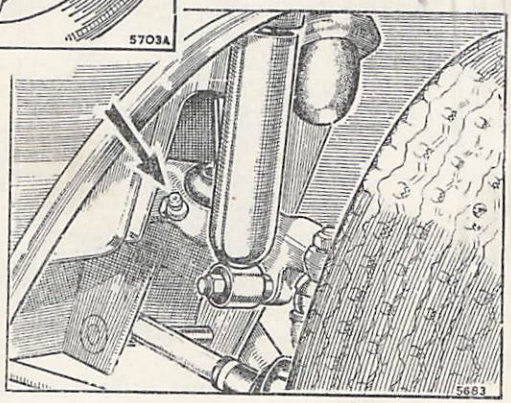
Grease nipples are situated at the points listed below, and several strokes from a grease gun filled with grease to Ref. C, page 68, should be given at each point;

(1) Upper and lower steering swivel knuckles. Two nipples each side. Jack up the front of the vehicle to take the load off the swivel knuckles and make certain that the lubricating nipples are clean and not blocked with road dirt. If the nipples are already filled with grease no further grease can usually be forced in.

(2) Upper support arm, inner pivot. One nipple each side.



The arrows show the lubricating nipples on the upper and lower steering swivel knuckles.



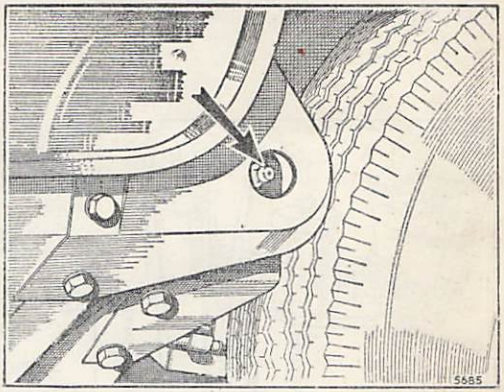
The inner pivot of the upper support arm is lubricated through the grease nipple provided on each side

(3) Rear suspension radius arms. One nipple each side. The grease gun must be applied to the nipple and operated there until the grease exudes from the inner bush.

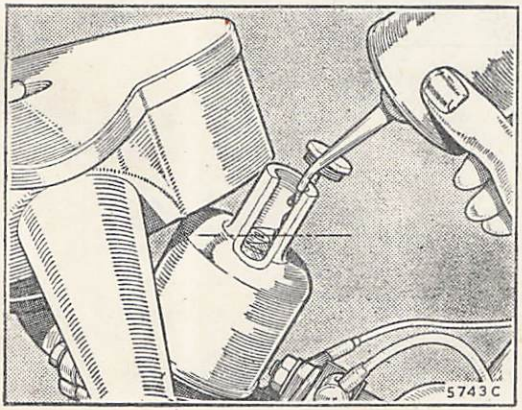
Battery

Remove the filler plug from each cell and examine the level of the electrolyte. If necessary, add sufficient distilled water to bring the electrolyte **just above the top of the separators.** Do not use tapwater and do not use a naked light when examining the conditions of the cells. Do not overfill. Wipe away all dirt and moisture from the top of the battery.

The battery is located in the well of the luggage compartment of the Saloon model, beneath the rear seat cushion of the Traveller, and behind the passenger's seat of the Van and Pick-up.



One nipple is provided each side to lubricate the rear suspension radius arms



Lubricating the carburetter piston damper. Top up to the correct level.

Carburetter damper (D)

The reservoir needs topping up periodically with thin engine oil to Ref. A, page 68. Unscrew and remove the damper unit and pour oil into the hollow piston rod until the level is ½ in. (13 mm.) from the top of the rod, then screw the damper back into position.

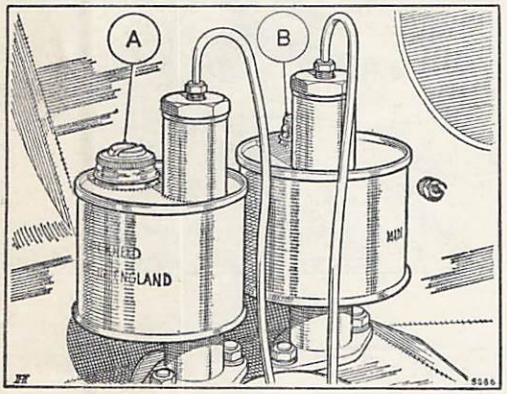
The function of this piston damper unit is to provide an appropriate degree of enrichment for acceleration, and also to improve cold starting.

EVERY 3,000 MILES (5000 Km.)

Brake and clutch master cylinders

Check the level of fluid in the hydraulic brake and clutch master cylinders, and replenish if necessary with Lockheed Super Heavy Duty Brake Fluid. If this is not available a fluid conforming to Specification S.A.E. 70.R3 should be used.

Maintain the level of fluid at ¼ in. (6 mm.) below the bottom of the filler neck in each cylinder.



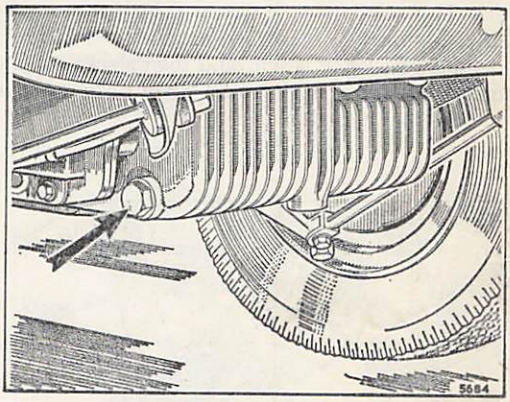
The level of the fluid in the hydraulic brake (A) *and clutch* (B) *master cylinder reservoirs should be maintained at ¼ in. (6 mm.) below the bottom of the filler neck*

Draining the sump

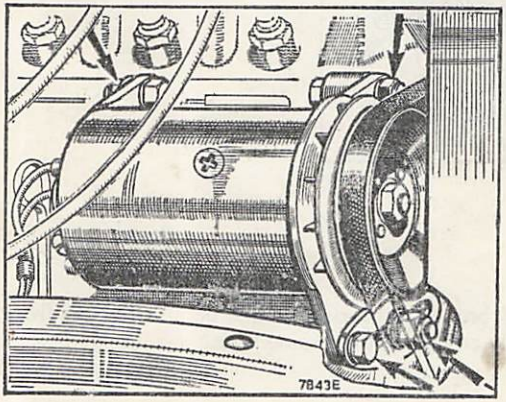
The oil in the sump should be drained to clear any impurities that may have accumulated and then refilled with the appropriate grade of lubricant. This operation is best carried out immediately the vehicle returns from a journey, while the oil is warm and more fluid.

On the right-hand side of the engine sump will be found a hexagon-headed drain plug. Removal of this magnetic plug will release the contents of the sump. After carefully cleaning the drain plug (using non-fluffy rag) it should be replaced and screwed up tightly.

Refill the sump with fresh oil to Ref. A, page 68.



The sump drain plug is located on the right-hand side of the engine



The dynamo attachment points to be slackened for belt adjustment

Dynamo driving belt

Inspect the dynamo driving belt, and adjust if necessary to take up any slackness. Care should be taken to avoid overtightening the belt, otherwise undue strain will be thrown on the dynamo bearings.

The belt tension is adjusted by slackening the bolts of the dynamo cradle and moving the dynamo the required amount by hand. Tighten up the bolts thoroughly.

EVERY 6,000 MILES (10000 Km.)

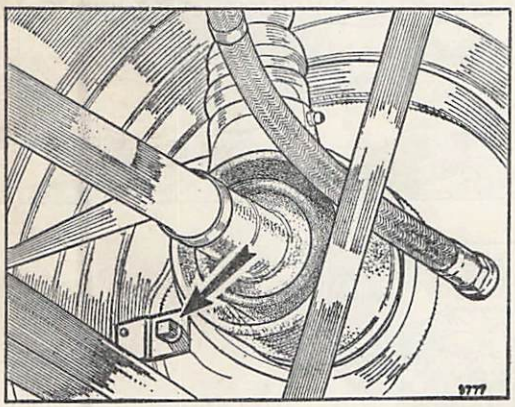
Brake adjustment

Adjustment is required when excessive travel of the brake pedal is necessary to operate the brakes.

Chock the wheels remaining in contact with the ground to prevent the car rolling when the hand brake is released for rear brake adjustment. Use the special jack provided in the tool kit to raise the wheels.

Front

The square-headed bolt on the brake-plate adjusts both brake-shoes. In order to move the shoes nearer to the drums the adjusting bolt must be turned in a clockwise direction when viewed from the centre of the car, and it will be found that each bolt can be turned a quarter of a turn at a time. Turn the bolt until a definite resistance is felt, and then slacken back a quarter of a turn or more until no binding is experienced when turning the wheel by hand.



One square-headed brake adjusting bolt is provided on each brake-plate

Rear

Adjustment to the rear wheel brakes is the same as that detailed for the front. The hand brake is automatically adjusted at the same time.

Brake relining

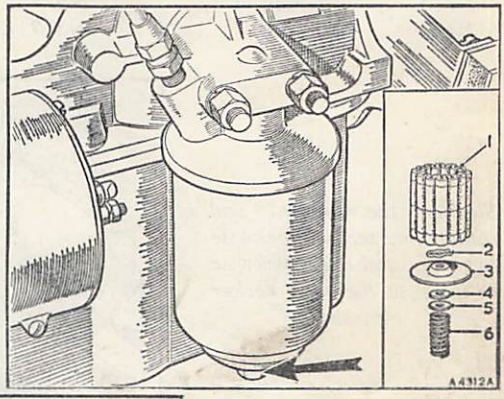
When it becomes necessary to renew the brake linings it is essential that the material used is the same as that originally specified, or an approved alternative, otherwise the front-to-rear brake balance will be adversely affected, with serious consequences due to out-of-balance braking. Under no circumstances must linings of varying characteristics be used at different brake stations. To maintain the balance required and ensure maximum braking efficiency B.M.C. Service replacement shoes should be fitted in preference to relining.

Oil filter

The engine oil filter element must be renewed. Unscrew the central retaining bolt to release the filter bowl and element.

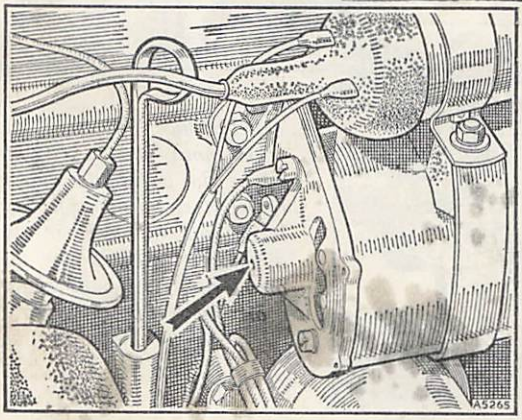
Clean the filter bowl thoroughly and make certain that the correct replacement element is obtained for the make of filter fitted. Use element to B.M.C. Part No. 8G706.

Make certain that the sealing washer is in good order; it must be renewed should there be any doubt as to its condition.



The engine oil filter retaining bolt, with the internal washers, etc., shown inset

1. Filter element.
2. Retaining clip.
3. Seating plate.
4. Sealing washer.
5. Steel washer.
6. Spring.



The lubricating hole for the dynamo end bearing

Should the internal seating be removed, it must be refitted in the order shown in the illustration. The felt or rubber sealing washer must be a good fit on the bolt.

Insert the new element into the bowl, fill up with new engine oil, and refit the assembly to the filter head. Check the filter for signs of leakage immediately the engine is started.

Dynamo bearing

Add two or three drops of engine oil to Ref. A, page 68, to the dynamo bearing through the central hole in the rear end bearing plate.

Do not over-oil.

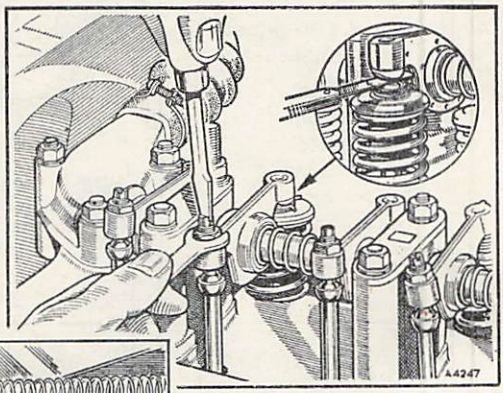
EVERY 6,000 MILES (10000 Km.)

Valve rockers

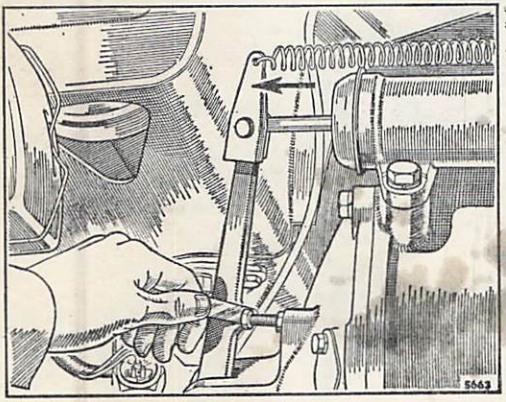
The valve rocker clearances should be checked, and adjusted where necessary, to have a clearance between the rocker arm and the valve stem of ·012 in. (·30 mm.) when cold.

Adjustment must be made with the tappet on the back of the cam. Testing and adjustments should be carried out in the following order:

No. 1	valve	with	No. 8	fully	open	No. 8	valve	with	No. 1	fully	open
No. 3	,,	,,	No. 6	,,	,,	No. 6	,,	,,	No. 3	,,	,,
No. 5	,,	,,	No. 4	,,	,,	No. 4	,,	,,	No. 5	,,	,,
No. 2	,,	,,	No. 7	,,	,,	No. 7	,,	,,	No. 2	,,	,,



Slacken the locknut and rotate the screw clockwise to reduce and anti-clockwise to increase the valve rocker clearance



A clearance of ·020 in. (·508 mm.) must exist between the adjustable clutch return stop and the operating lever. Pull the lever in the direction indicated by the arrow and check the clearance with a feeler gauge

Clutch adjustment

It is important that a clearance should exist between the clutch thrust race and the thrust ring. All vehicles have this clearance carefully set before dispatch. Gradually, as wear takes place, however, this clearance will diminish and, if neglected, clutch slip will result.

An adjustable stop is provided on the transmission casing just forward of the clutch operating lever. Pull the operating lever outwards until all free movement is taken up and then check with a feeler gauge that there is a clearance of ·020 in. (·508 mm.) between the operating lever and the head of the adjustment bolt. Correct if necessary.

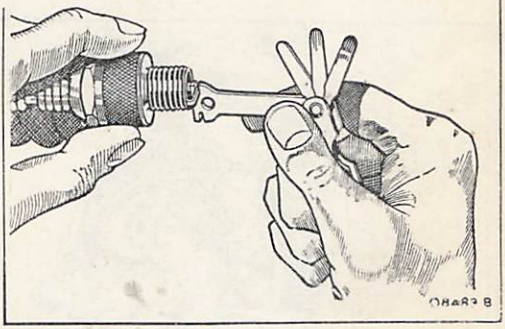
Sparking plugs and leads

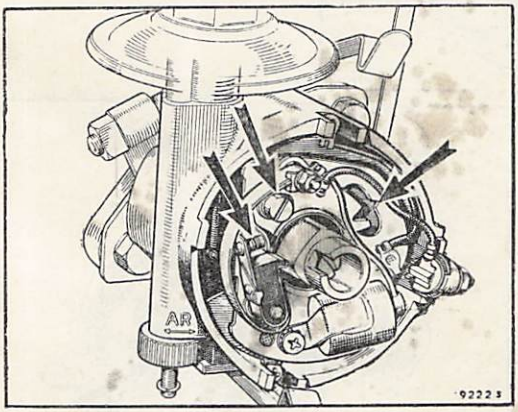
The sparking plugs should be cleaned, preferably by a garage with a special air-blast service unit, and the gaps reset to the dimensions given under **'GENERAL DATA'**, page 5.

Use a special Champion sparking plug gauge and setting tool, and move the side wire on the plug only, never the centre one.

Oily, dirty, or corroded plugs cannot give good results.

The Champion sparking plug gauge and setting tool





The contact breaker points, contact plate securing screw, and the screwdriver adjusting slots are here indicated by the arrows

Checking the distributor contact breaker

Remove the distributor cover and rotor arm, and wipe the inside and outside of the moulded distributor cap with a soft, dry cloth.

Turn the engine until the contacts are fully opened. To rotate the crankshaft and open the contacts to the desired position engage top gear and gently rock the car forward. **Make sure that the ignition is switched off.** Check the gap with a ·016 in. (·40 mm.) gauge: the gauge should be a sliding fit in the gap. If the gap varies appreciably from the gauge slacken the contact plate securing screw and adjust the contact gap by inserting a screwdriver in the notched hole at the

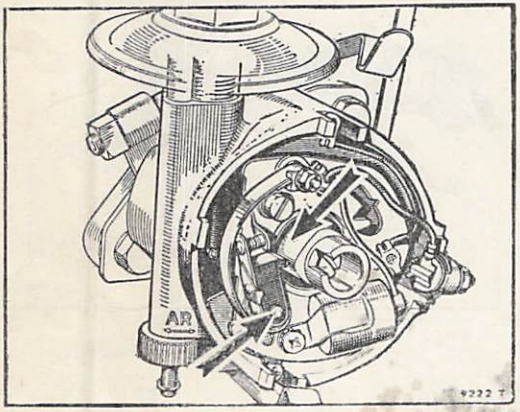
EVERY 6,000 MILES (10000 Km.)

end of the plate, turning clockwise to decrease and anti-clockwise to increase the gap. Tighten the securing screw.

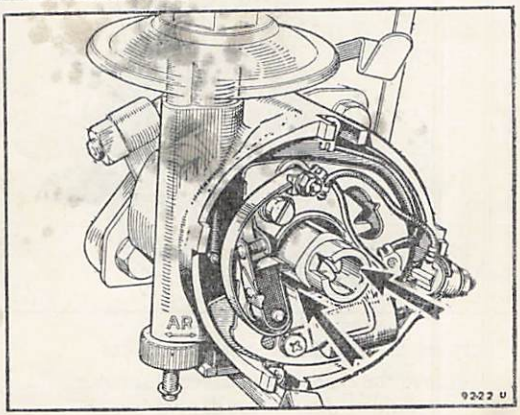
If the contact breaker points are burned or blackened clean them with a fine carborundum stone or with very fine emery-cloth.

Cleaning the contacts is made easier if the lever carrying the moving contact is removed. To do this unscrew the nut securing the end of the spring, remove the spring washer, flat washer, and both wire terminals, and lift off the lever complete with spring. After cleaning check the contact breaker setting on replacement.

See that the small carbon brush on the moulding works freely in its holder.



A slight trace of grease or engine oil should be applied to the rotating cam. The contact breaker lever pivot should also receive a drop of oil



The distributor cam bearing and automatic timing control lubricating points

Distributor lubrication

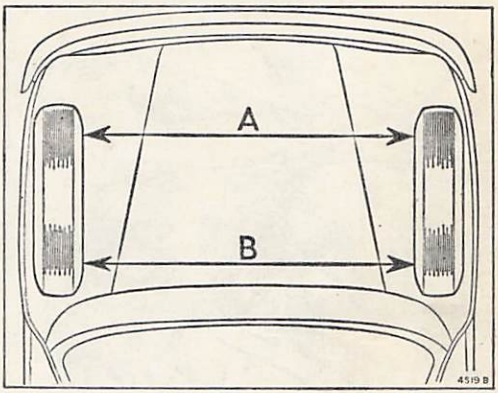
Lightly smear the cam with a very small amount of grease to Ref. C, page 68, or clean engine oil can be used.

Place a small amount of grease to Ref. C or clean engine oil on the pivot on which the contact breaker lever works. Do not allow oil or grease to get on the contacts. Use lubricant sparingly.

Lift the rotor off the top of the distributor drive spindle by pulling it off in line with the spindle axis, and add a few drops of thin engine oil to the cam bearing. Do not remove the screw which is exposed to view; there is a clearance between the screw and the inner face of the cam spindle for the oil to pass.

Replace the rotor with its drive lug correctly engaging the spindle slot and push it on the shaft as far as it will go.

Add a few drops of oil to Ref. A, page 68, through the hole in the contact breaker base plate through which the cam passes.



The front wheel alignment check must be taken with the wheels in the straight-ahead position. Dimension (A) *must be* $\frac{1}{16}$ *in.* (1·59 *mm.*) *greater than* (B)

Tracking the wheels

Excessive and uneven tyre wear is usually caused by faulty wheel tracking. The front wheels must toe out a total of $\frac{1}{16}$ in. (1·59 mm.), or at an angle of 7 min. 30 sec. per wheel, but ensure that these measurements are taken on a $14\frac{1}{2}$ in. (36·83 cm.) diameter (on the side wall of the tyre) at a distance of 9·4 in. (24·21 cm.) above the ground level, and that the rims run true.

Correct setting of the front wheels entails the use of a wheel alignment gauge, and the owner is strongly advised to **entrust this work to his Dealer or Distributor.**

Lamps

Check all lamps for correct functioning.

For the complete summary of attention to be given every 6,000 miles (10000 km.) refer to page 58.

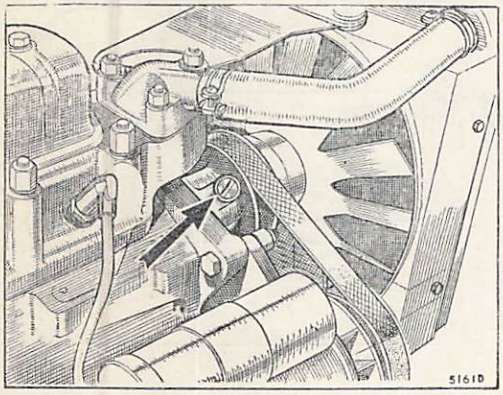
EVERY 12,000 MILES (20000 Km.)

Air filter (dry type)

The air cleaner element must be replaced with a new element every 12,000 miles (20000 km.), or earlier in dusty operating conditions.

Unscrew the wing nut from the top of the filter, withdraw the cover and filter element, and discard the element. Thoroughly clean the container, fit a new element, replace the cover and wing nut, and refit the assembly to the vehicle.

Do not disturb the cover or the element at any other time.



Unscrew the plug from the water pump body and lubricate the pump sparingly

Water pump

Remove the plug from the water pump casing and add a small quantity of grease to Ref. C (page 68).

The lubrication of the water pump must be done very sparingly, otherwise grease will seep past the bearings onto the face of the carbon sealing ring and impair its efficiency.

Sparking plugs

Fit new sparking plugs.

For a complete summary of the attention to be given every 12,000 miles (20000 km.) see also pages 59 and 60.

SUPPLEMENTARY TOOL KIT

To supplement the tool kit a roll containing the following is obtainable from all Distributors. Part No. 97H524 should be quoted.

4 spanners: $\frac{6}{16}$ in. × $\frac{3}{8}$ in. A.F.
$\frac{9}{16}$ in. × $\frac{5}{8}$ in. A.F.
$\frac{7}{16}$ in. × $\frac{1}{2}$ in. A.F.
$\frac{11}{16}$ in. × $\frac{3}{4}$ in. A.F.

1 pair 6-in. pliers.
1 adjustable spanner (7 in.).
1 tubular spanner ($\frac{1}{2}$ in. × $\frac{8}{16}$ in. A.F.).
1 tommy-bar ($\frac{3}{8}$ in. diameter).
1 Phillips screwdriver.

BODYWORK

Coachwork

Regular care of the body finish is necessary if the new appearance of the car exterior is to be maintained against the effects of air pollution, rain, and mud.

Wash the bodywork frequently, using a soft sponge and plenty of water containing a mild detergent. Large deposits of mud must be softened with water before using the sponge. Smears should be removed by a second wash in clean water, and with the sponge if necessary. When dry, clean the surface of the car with a damp chamois-leather. In addition to the regular maintenance, special attention is required if the car is driven in extreme conditions such as sea spray, or on salted roads. In these conditions and with other forms of severe contamination an additional washing operation is necessary which should include under-body hosing. Any damaged areas should be immediately covered with paint and a complete repair effected as soon as possible. Before touching-in light scratches and abrasions with paint thoroughly clean the surface. Use petrol/white spirit (gasoline/hydrocarbon solvent) to remove spots of grease or tar.

The application of B.M.C. Car Polish is all that is required to remove traffic film and to ensure the retention of the new appearance.

Bright trim

Never use an abrasive on stainless, chromium, aluminium, or plastic bright parts and on no account clean them with metal polish. Remove spots of grease or tar with petrol/white spirit (gasoline/hydrocarbon solvent) and wash frequently with water containing a mild detergent. When the dirt has been removed polish with a clean dry cloth or chamois-leather until bright. Any slight tarnish found on stainless or plated components which have not received regular washing may be removed with B.M.C. Chrome Cleaner. An occasional application of mineral light oil or grease will help to preserve the finish, particularly during winter, when salt may be used on the roads, but these protectives must not be applied to plastic finishes.

Windshield

If windshield smearing has occurred it can be removed with B.M.C. Screen Cleaner.

Interior

Clean the carpets with a stiff brush or vacuum cleaner, preferably before washing the outside. The upholstery, carpets, and roof lining may be treated with B.M.C. 2-way Cleaning Fluid applied with a damp cloth and a light rubbing action. The best result will be obtained on carpets if the solution is applied with a soft brush.

A razor blade will remove transfers from the window glass.

The B.M.C. approved products mentioned above are obtainable from your Distributor or Dealer.

Care of varnish on exterior woodwork

Wash regularly with water to which a suitable detergent has been added.

Thoroughly dry the varnish afterwards, paying particular attention to the joints in the woodwork.

Re-varnish the woodwork annually, using the varnish recommended in the B.M.C. Service Paint Scheme, Part No. AKJ1901.

Sand the original varnish first with 320 grade wet-and-dry paper, used dry. The 320 grade paper is manufactured by the Minnesota Mining and Manufacturing Co. Ltd., and is obtainable on a world-wide basis.

NOTES

PERIODICAL ATTENTION

Regular servicing, as proved by presentation of completed voucher counterfoils, could well enhance the value of your vehicle in the eyes of a prospective purchaser.

ALL MATERIALS CHARGEABLE TO THE CUSTOMER.

Daily

Check oil level in engine/transmission unit. Top up if necessary.
Check water level in radiator. Top up if necessary.

Weekly

Test tyre pressures, and regulate if necessary.
Check battery level, and top up if necessary.

3,000 miles (5000 km.) service or 3 months

1. *Engine*
   Top up carburetter piston damper.
   Check water level in radiator, and top up if necessary.

2. *Clutch*
   Check level of fluid in the supply tank, and top up if necessary.

3. *Brakes*
   Check brakes, and adjust if necessary.
   Make visual inspection of brake lines and pipes.
   Check level of fluid in the supply tank, and top up if necessary.

4. *Electrical*
   Check battery and top up to correct level.

5. *Lubrication*
   Lubricate all grease nipples.

6. *Wheels and tyres*
   Check tyre pressures.

PERIODICAL ATTENTION

6,000 miles (10000 km.) service or 6 months

1. *Engine*
   Top up carburetter piston damper.
   Check fan belt tension.
   Check valve rocker clearances, and adjust if necessary.
   Check water level in radiator, and top up if necessary.

2. *Ignition*
   Check distributor contact points, clean, and adjust if necessary.
   Check functioning of the automatic advance and retard mechanism, and lubricate if necessary.
   Lubricate all parts as necessary.
   Clean and adjust sparking plugs.

3. *Clutch*
   Check level of fluid in the supply tank, and top up if necessary.
   Check clearance at return stop, and adjust if necessary.

4. *Steering*
   Check front wheel alignment, and adjust if necessary.

5. *Brakes*
   Check brakes, and adjust if necessary.
   Make visual inspection of brake lines and pipes.
   Check level of fluid in the supply tank, and top up if necessary.

6. *General*
   Check tightness of all nuts and bolts on universal joints, and suspension, etc.

7. *Electrical*
   Check battery cell specific gravity readings and top up to correct level.
   Lubricate dynamo bearing.
   Check all lamps for correct functioning.

8. *Lubrication*
   Change oil in engine/transmission unit and wipe magnetic drain plug.
   Fit new oil filter element.
   Lubricate all grease nipples.

9. *Wheels and tyres*
   Check tyre pressures.

9,000 miles (15000 km.) service or 9 months.
Carry out the **3,000 miles (5000 km.) service.**

12,000 miles (20000 km.) service or 12 months

1. *Engine*
   Top up carburetter piston damper.
   Check valve rocker clearances, and adjust if necessary.
   Fit new air cleaner element.
   Check fan belt tension.
   Lubricate water pump sparingly.
   Check radiator water level and top up if necessary.

2. *Ignition*
   Check distributor contact points, clean, and adjust if necessary.
   Check functioning of the automatic advance and retard mechanism, and lubricate if necessary.
   Lubricate all parts as necessary.
   Fit new sparking plugs.

3. *Clutch*
   Check level of fluid in the supply tank, and top up if necessary.
   Check clearance at return stop, and adjust if necessary.

4. *Steering*
   Check steering and suspension moving parts for wear.
   Check front wheel alignment, and adjust if necessary.

5. *Brakes*
   Check brakes, and adjust if necessary.
   Make visual inspection of brake lines and pipes.
   Check level of fluid in the supply tank, and top up if necessary.

6. *General*
   Check tightness of all nuts and bolts on universal joints, and suspension, etc.

7. *Electrical*
   Check battery cell specific gravity readings and top up to correct level.
   Lubricate dynamo bearing.
   Check all lamps for correct functioning.

8. *Lubrication*
   Drain engine/transmission oil and refill with fresh oil. Wipe magnetic drain plug.
   Fit new oil filter element.
   Lubricate all grease nipples.

PERIODICAL ATTENTION

11. *Wheels and tyres*
Check tyre pressures.

IMPORTANT

Your attention is drawn to the following points, compliance with which, we suggest, will prove mutually beneficial.

1. WARRANTY DOCUMENT

Retention of the Certificate or Passport to Service, signed by the Distributor or Vendor, in a safe place **in the vehicle** will (by quickly establishing the date of sale) help to expedite any adjustments under Warranty if such adjustments are required to be carried out by an authorized Distributor or Dealer other than the supplier of your vehicle.

2. CLAIMS UNDER WARRANTY

Claims for the replacement of material or parts under Warranty must be submitted to the supplying Distributor or Dealer or, when this is not possible, to the nearest Distributor or Dealer, informing them of the Vendor's name and address.

Except in cases of emergency, Warranty work should always be carried out by a franchise holder, since this ensures that no doubt can arise in connection with circumstances of the vehicle history when claims are put forward.

3. PREVENTIVE MAINTENANCE

A Passport to Service containing Service Vouchers (applicable in the United Kingdom only) is provided with every new vehicle, and the regular use of the Vouchers in sequence is the best safeguard against the possibility of abnormal repair bills at a later date. Replacement Passport to Service Books are obtainable free of charge from Distributors and Dealers. **Prevent** rather than **cure.**

Regular servicing, proved by completed Voucher counterfoils, could well enhance the value of your vehicle in the eyes of a prospective buyer.

4. REPLACEMENT PARTS

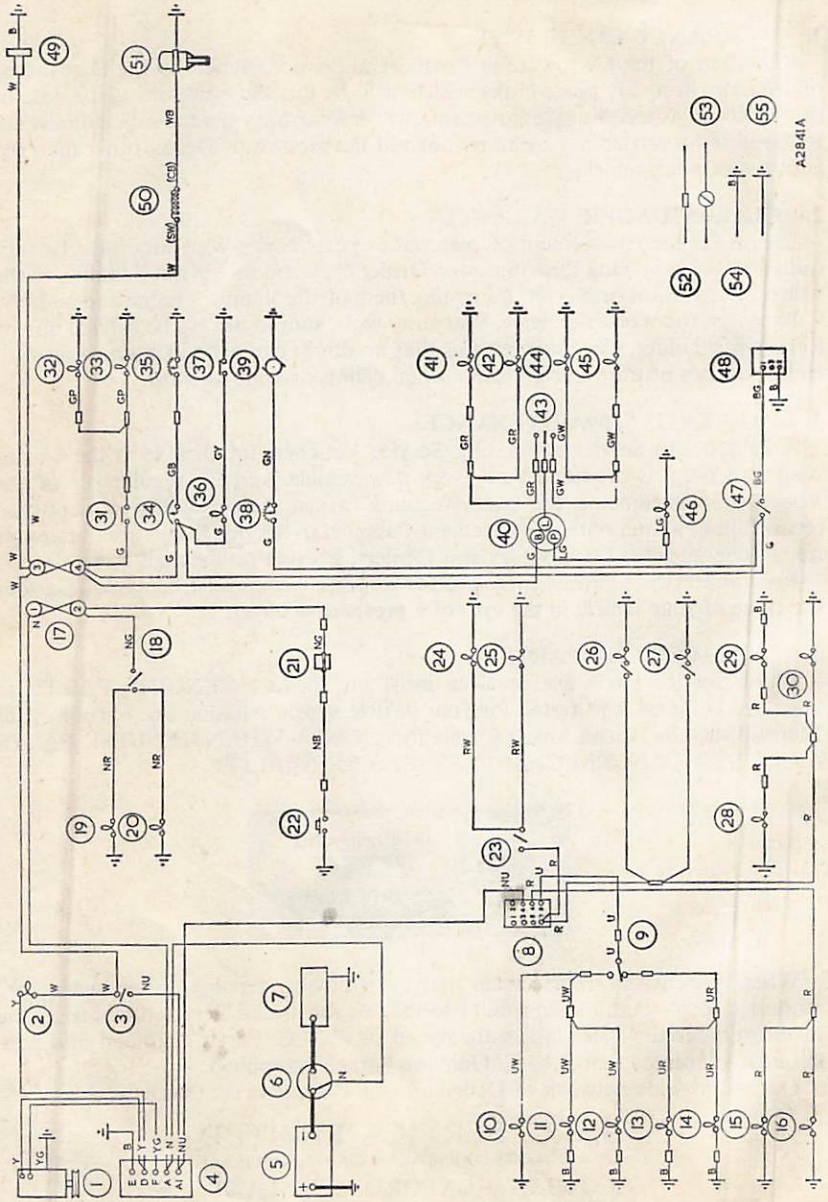
When Service Parts are required insist on B.M.C. GENUINE PARTS as these are designed and tested for your vehicle and in addition are warranted for 12 months by the British Motor Corporation. ONLY WHEN GENUINE PARTS ARE USED CAN B.M.C. ACCEPT RESPONSIBILITY.

When purchasing replacement parts or having repairs done owners are requested to see that a label similar to the one illustrated here is attached to the invoice rendered. These labels are issued by B.M.C. Service Limited and constitute a guarantee that B.M.C. Genuine Parts are supplied.

Our world-wide network of Distributors and Dealers is at your service.

B.M.C. SERVICE LIMITED
Proprietors: The British Motor Corporation Limited
COWLEY · OXFORD · ENGLAND
Telephone: Oxford 77777 *Telegrams:* BMCSERV. Telex. Oxford
Telex: BMCSERV. Oxford 83145 and 83146
Overseas Cables: BMCSERV. Telex. Oxford. England

WIRING DIAGRAM (Standard)



KEY TO WIRING DIAGRAM (Standard)

1. Dynamo.
2. Ignition warning light.
3. Ignition switch.
4. Control box.
5. 12-volt battery.
6. Starter switch.
7. Starter motor.
8. Lighting switch.
9. Main-beam dipping switch.
10. Main-beam warning light.
11. R.H. headlight main beam.
12. L.H. headlight main beam.
13. R.H. headlight dip beam.
14. L.H. headlight dip beam.
15. L.H. pilot light.*
16. R.H. pilot light.*
17. Fuse unit.
18. Parcel shelf light switch.
19. R.H. parcel shelf light.
20. L.H. parcel shelf light.
21. Horn.
22. Horn-push.
23. Panel light switch.
24. Panel light.
25. Panel light.
26. R.H. companion pocket light and switch.
27. L.H. companion pocket light and switch.
28. R.H. tail light.
29. Number-plate lamp.
30. L.H. tail light.
31. Stop light switch.
32. R.H. stop light.
33. L.H. stop light.
34. Fuel gauge.
35. Fuel gauge tank unit.
36. Oil pressure warning light.
37. Oil pressure light switch.
38. Heater rheostat.
39. Heater motor.
40. Flasher unit.
41. L.H. rear flasher.
42. L.H. front flasher.
43. Flasher switch.
44. R.H. front flasher.
45. R.H. rear flasher.
46. Flasher warning light.
47. Windshield wiper switch.
48. Windshield wiper motor.
49. Fuel pump.
50. Coil.
51. Distributor.
52. Snap connectors.
53. Terminal blocks or junction box.
54. Earth made via cable.
55. Earth made via fixing bolts.

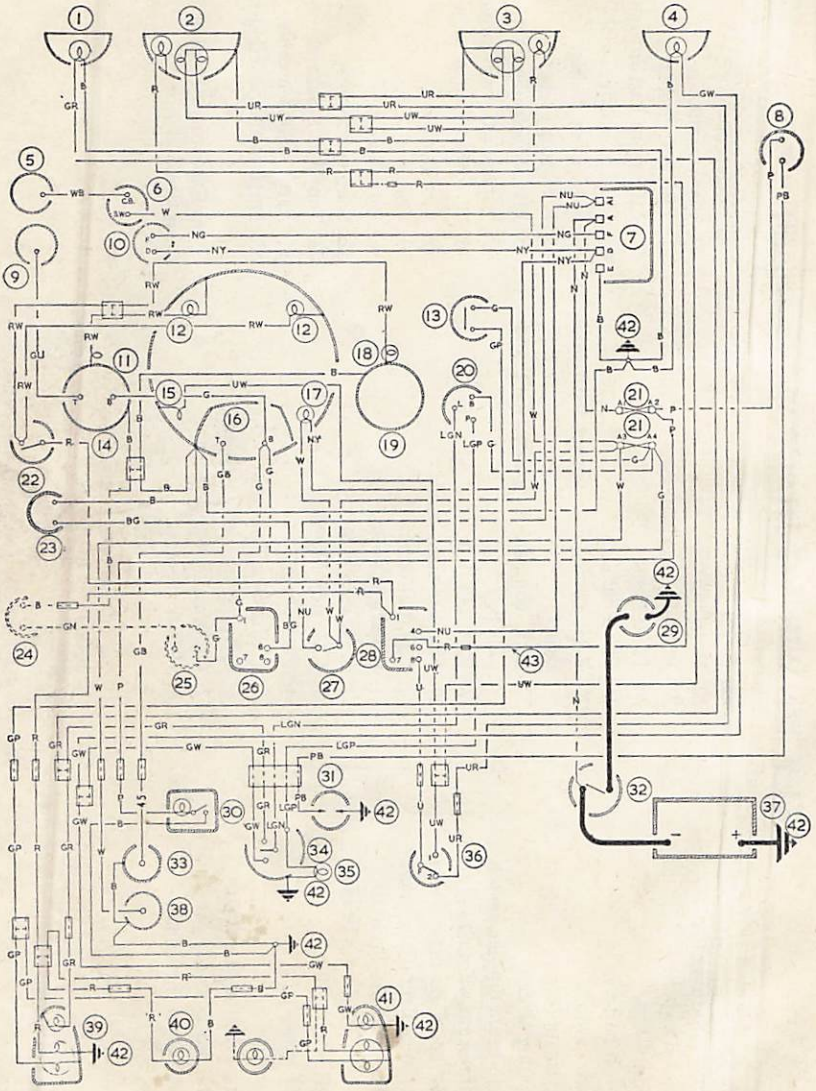
*On Export models pilot lights are fed from terminal 7.

CABLE COLOUR CODE

B.	Black.	P.	Purple.	Y.	Yellow.
U.	Blue.	R.	Red.	D.	Dark.
N.	Brown.	S.	Slate.	L.	Light.
G.	Green.	W.	White.	M.	Medium.

When a cable has two colour code letters the first denotes the main colour and the second denotes the tracer colour

WIRING DIAGRAM (Super De Luxe)



KEY TO WIRING DIAGRAM (Super De Luxe)

1. L.H. flasher light.
2. L.H. headlight and pilot light.
3. R.H. headlight and pilot light.
4. R.H. flasher light.
5. Distributor.
6. Ignition coil.
7. Voltage regulator and cut-out.
8. Horn.
9. Thermo element.
10. Dynamo.
11. Temperature gauge illumination light.
12. Panel illumination lights.
13. Stop light switch.
14. Temperature gauge.
15. Main-beam warning light.
16. Fuel gauge.
17. Ignition warning light.
18. Oil gauge illumination light.
19. Oil gauge.
20. Flasher unit.
21. 35-amp. fuses.
22. Panel light switch.
23. Wiper motor.
24. Heater motor.
25. Heater switch.
26. Wiper switch.
27. Ignition switch.
28. Lighting switch.
29. Starter motor.
30. Interior light.
31. Horn-push.
32. Starter switch.
33. Tank unit.
34. Direction indicator switch.
35. Direction indicator warning light.
36. Dipper switch.
37. 12-volt battery.
38. Fuel pump.
39. L.H. stop, tail, and flasher light.
40. Number-plate illumination light.
41. R.H. stop, tail, and flasher light.
42. Earth connection.
43. Connect to terminal 6 for North America.

NOTE.—On Export models the pilot lamps house double-filament bulbs for pilot and flasher lights.

CABLE COLOUR CODE

B. Black.	P. Purple.	Y. Yellow.
U. Blue.	R. Red.	D. Dark.
N. Brown.	S. Slate.	L. Light.
G. Green.	W. White.	M. Medium.

When a cable has two colour code letters the first denotes the main colour and the second denotes the tracer colour.

INDEX

INDEX

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KEY TO RECOMMENDED LUBRICANTS

	A	B	C
Component	Engine/Transmission Unit, Oilcan, and Carburetters	Grease Points	Upper Cylinder Lubrication
Climatic conditions	**All temperatures above 0° F. (—17·8° C.)**	**All conditions**	**All conditions**
ESSO	Esso Extra Motor Oil 20W/30*	Esso Multipurpose Grease H	Esso Upper Cylinder Lubricant
MOBIL	Mobiloil Special	Mobilgrease M.P.	Mobil Upperlube
BP	B.P. Energol Visco-Static	Energrease L. 2	Energol U.C.L.
SHELL	Shell X—100 Multigrade 10W/30	Shell Retinax A	Shell Upper Cylinder Lubricant
FILTRATE	Filtrate 10W/30 Multigrade	Filtrate Super Lithium Grease	Filtrate Petroyle
STERNOL	Sternol Multiplic	Ambroline L.H.T.	Sternol Magikoyl
DUCKHAM'S	Q5500	Duckham's L.B. 10 Grease	Duckham's Adcoid Liquid
CASTROL	Castrolite*	Castrolease L.M.	Castrollo

Approval is also given to Duckhams Q.20-50 and to monograde or single-viscosity conventional lubricants supplied by companies listed in this publication.

* For temperatures below 10° F. (—12·2° C.) use the S.A.E. 10W/30 grade oil. This is available in markets where such low temperatures prevail.

CORRECTION

AKD 3886/1

Morris Mini Minor Driver's Handbook AKD 3886

The lubrication chart and key given overleaf must be substituted for the lubrication chart and key contained in the Driver's Handbook Part No. AKD 3886

KEY TO LUBRICATION CHART

Lubricants to the letter references given in the following key will be found on page 68.

DAILY

(1) ENGINE. Inspect the oil level by the dipstick, and replenish if necessary with oil to Ref. A.

EVERY 3,000 MILES (5000 Km.)

(2) STEERING JOINT NIPPLES.

(3) REAR SUSPENSION RADIUS ARMS.

Give three or four strokes of a grease gun filled with grease to Ref. B.

(4) CARBURETTER. Remove the cap from the top of the suction chamber and top up with oil to Ref. A.

EVERY 6,000 MILES (10000 Km.)

(5) ENGINE. Drain off the old oil and refill with fresh oil to Ref. A.

(6) DISTRIBUTOR. Withdraw the rotor arm and add a few drops of oil to Ref. A to the cam bearing and to the advance mechanism through the gap around the cam spindle. Smear the distributor cam spindle and contact breaker pivot with grease to Ref. B.

(7) OIL FILTER. Wash the bowl in fuel and fit a new element.

(8) DYNAMO. Add a few drops of oil to Ref. D through the oil hole in the commutator end bearing.

EVERY 12,000 MILES (20000 Km.)

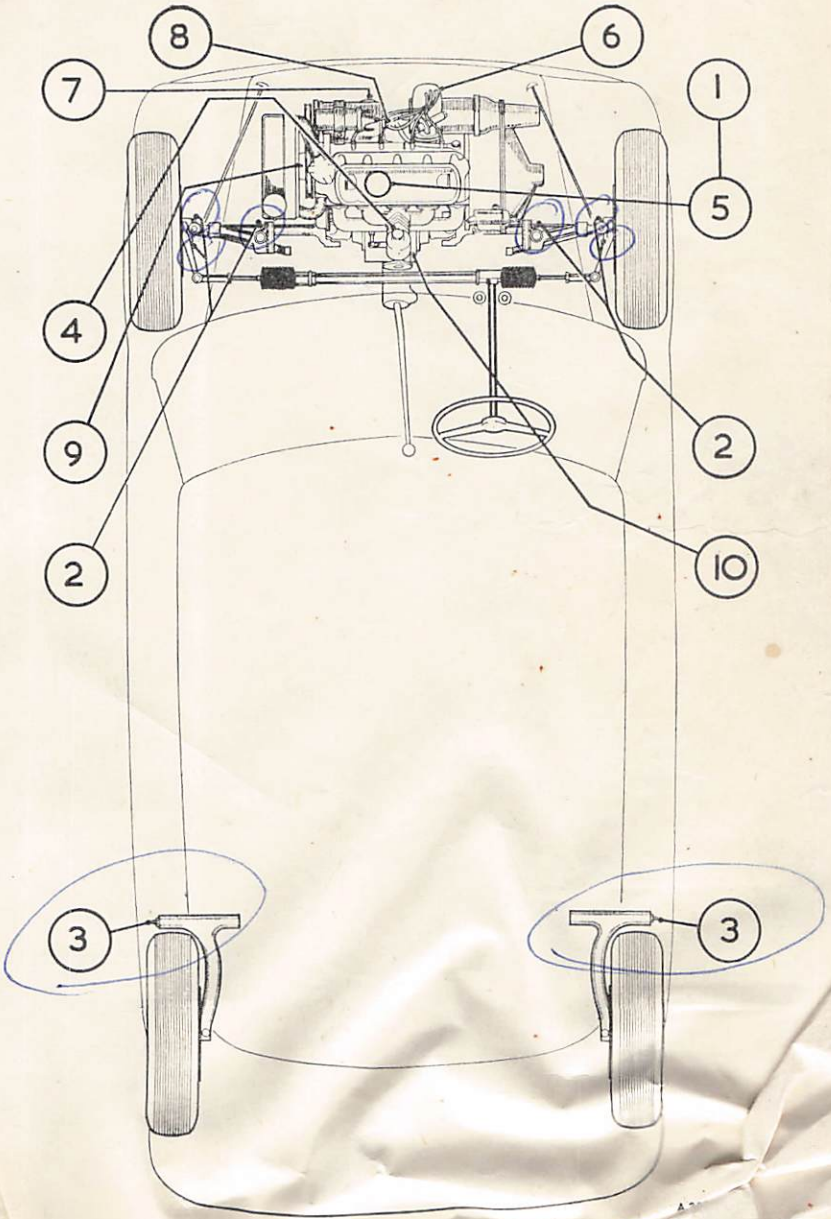
(9) WATER PUMP. Remove the plug from the water pump body and lubricate the pump sparingly with grease to Ref. B.

NOTES:—

The gear change shaft lubricating nipple shown on indicator 10 requires attention at major overhaul periods only, when grease to Ref. B should be used.

Use the lubricating oils and greases to the letter references given above and shown in the recommended lubricants chart on page 68.

LUBRICATION CHART



Colour

Balm Dulon

Acrylic Lacquer

Colour No 586-4634

Tallett Green

Publication No. AKD 3886